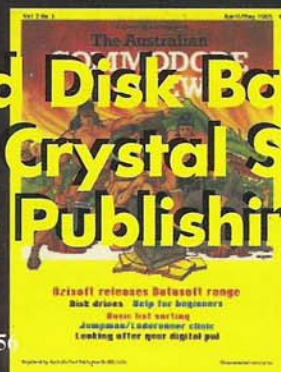
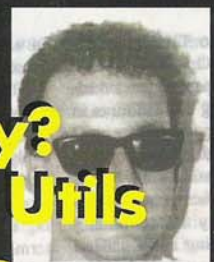
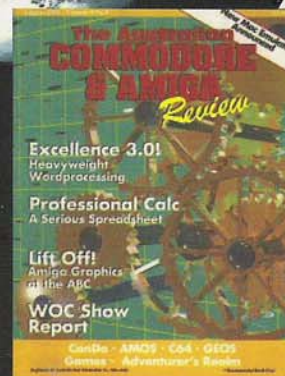
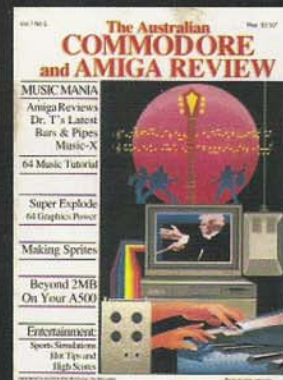


The Australian COMMODORE & AMIGA

Review



10th Year Anniversary Issue

Which Hard Disk Backup Utility?

- Protracker • Crystal Sound • Dir Utils
- Desktop Publishing • Games



Amiga 3000

No Problem

Specifications

Microprocessor

Motorola 68030 at 25Mhz

Co-Processor

Numeric Co-Processor 68882 at 25Mhz
Multi-chip Co-Processor system for DMA
Video, Graphics and Sound.

Memory

1Mb Chip RAM, expandable to 2Mb on board
1Mb Fast RAM, expandable to 16Mb on board

Internal High Speed SCSI hard drive

100 Mb 19 ms standard

Built-in Display Enhancer

Video Modes

640 x 256 16 colours
640 x 512 16 colours
320 x 256 4096 colours
320 x 512 4096 colours
1280 x 256 4 colours
1280 x 512 4 colours
1008 x 800 4 shades of grey*
1008 x 1024 4 shades of grey*
* requires high resolution monitor

Expansion Slots

4 Zorro III expansion slots
2 PC/AT expansion slots
1 video expansion slot
1 CPU memory expansion slot

Interface Connectors

23 pin Amiga video (15 KHz)
15 pin VGA style video (31.5 KHz)
Left and right stereo audio
External disk drive, Serial, Parallel, Stereo
Audio, Keyboard,
Joystick/Mouse/Lightpen connectors and SCSI port

Data Paths

32 bit CPU access to chip RAM
32 bit Fast RAM, with custom controller supporting
static column mode DRAMs and allowing
CPU burst access
32 bit DMA-based on board SCSI controller

Internal Real Time Clock with battery back-up



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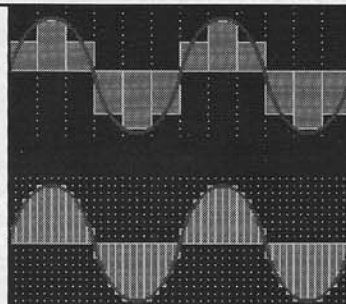
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Editorial



Sound the trumpets, call in the dancing girls, let the celebration begin. Yes folks, we've now officially entered our tenth year of publishing *Australian Commodore and Amiga Review*. Ten years of keeping Commodore computer users up to date with latest news, reviews and information. Ten years of tutorials, tips, hints and help. And what do we get in return? Fame? Wealth? Power?

No, just that warm fuzzy feeling when the next new magazine arrives hot off the press once a month. Strangely enough, it never wears off. Sometimes it wears thin, and other times the excitement is overwhelming. But on the whole, it's a lot of fun.

We've always tried to throw a small dose of humour into the Review. We also aim to make our articles a good read - the sort of magazine you read from cover to cover. We do this with help from you.

So, to all those people who have written or telephoned over the past ten years, thanks for your support and comments which have helped make the magazine what it is today.

Also, a big thanks to all our regular contributors. It's not a glamorous job and the pay is not fabulous. But the perks are great. Free software and hardware to play with and keep. Lot of new goodies every month. It's a lot of fun!

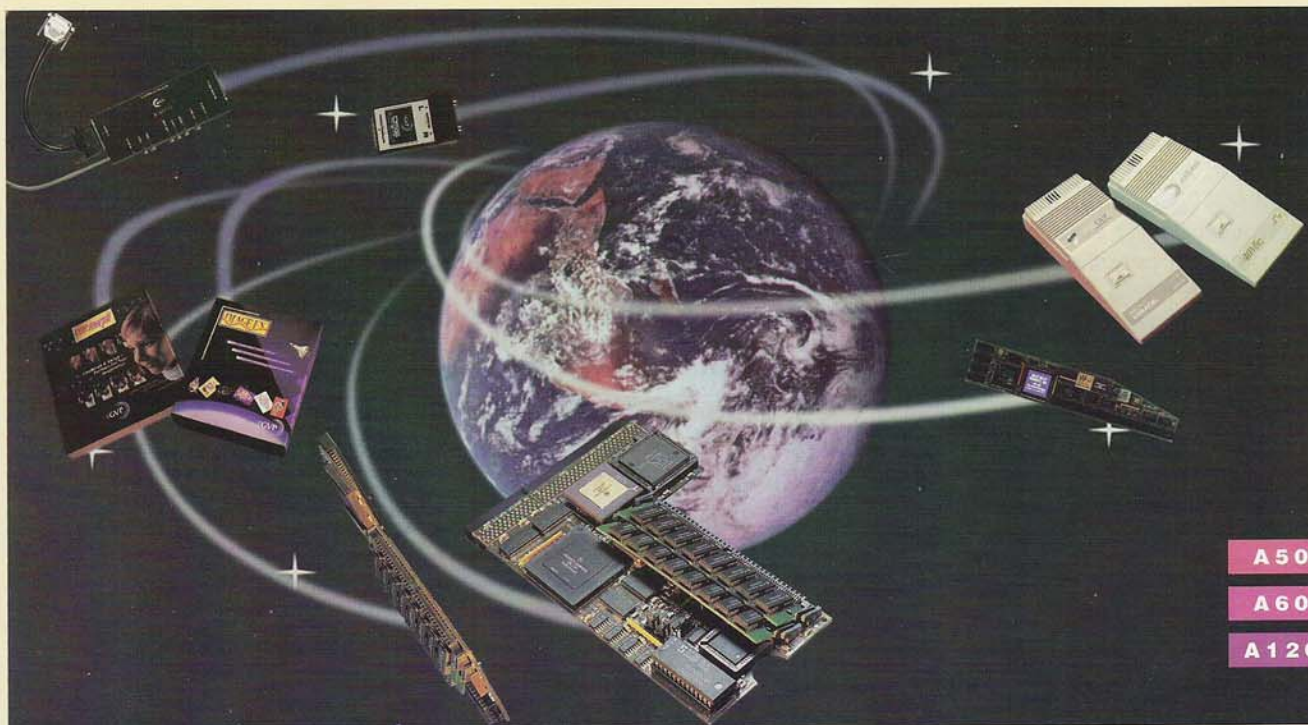
To our advertisers, we thank you too. Without advertising, a magazine like this would not be possible. A successful magazine and successful advertisers work hand in hand. Together we've grown to more than four times our original size. Proof that the Amiga world in Australia is alive and well.

And, thank YOU, our readers. Thanks for buying *Australian Commodore and Amiga Review* every month. We hope to continue bringing you what you want to read. So, don't hold back from throwing your ideas into the melting pot - whether you drop us a letter or a quick call. We're happy to exchange ideas and look at how we can make this magazine better.

Last of all, I would like to thank our production team for the marvelous way the magazine has improved over the past year. Each month Tina Goins, our chief desktop publisher, and Brenda Powell, the production manager, work extremely hard to keep the magazine on time. They have to contend with me, which I can assure you is not an easy thing. Nevertheless, they plod on and the magazine keeps getting better.

Ten years young! Off to the future we go.

Andrew Farrell



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UPDATE COLUMN

First let me wish heartiest congratulations to ACAR on their 10th Anniversary. The mere fact that the magazine is still going successfully after such a long period of time speaks for itself. And we at Pactronics appreciate the information we get from the magazine and the fact that we can pass on our information to you, the consumer, through ACAR. What I have decided to do this month is to celebrate by offering you some "specials" which you can obtain from your local retailer:

Amiga

AMOS The Creator	89.00	Not	\$139.00
AMOS 3-D	69.00	Not	99.00
Protext V4.3	59.95	Not	89.95
Fun School 2 (-5)	29.95	Not	49.95
Fun School 2 (6-8)	29.95	Not	49.95
Fun School 2 (8+)	29.95	Not	49.95
Amiga Test Cricket	10.95	Not	19.95
Vector Championship Run	21.95	Not	29.95
J. Khan Squash	21.95	Not	49.95
Dojo Dan	29.95	Not	69.95
P. P. Hammer	26.95	Not	49.95
Metal Mutant	17.95	Not	29.95
Neverending Story 2	26.95	Not	39.95
Graphics Inside & Out Book	26.95	Not	54.95
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Dataretrieve	59.95	Not	69.00
Starsoft Hard Drive			
Backup Utility	49.95	Not	69.00

C64

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Ram Rumbles

1993 World of Commodore

Commodore are busy organising yet another World of Commodore Show slated for July 2-4 at Darling Harbour, Sydney. Exhibitor bookings look set to exceed last year's show by at least a third.

Major retailers including Brash's and Harvey Norman will be there, offering all the latest software and hardware. Over eight companies from Britain and seven from the USA are expected, including GVP. CDTV owners will be keen to check out the Almathera stand. This company is using CD technology to the fullest. They put out Fred Fish on CDTV and since then have been doing a lot of the development on Commodore products. Paul Ralph from Almathera will be attending doing seminars on CD technology at the show.

Commodore will be displaying unique applications of the Amiga, including some touch screen Kiosks, which are Point of Sale solutions developed in the USA. There will also be an Amiga based virtual reality system - see April for a full story on this amazing entertainment system.

Australian Commodore and Amiga Review will be there again too! Other magazines will include *Amiga Format*, *Amiga Power* and *Amiga Shopper*.

At the third World of Commodore, this year, Commodore are holding a Real genius competition.

In Amiga stores throughout England, America, Australia and New Zealand anyone under eighteen can enter the

competition to find the world best Amiga genius. The winner will be drawn at World of Commodore. The prize is the much sought after Amiga 4000.

To enter, you must answer ten questions set from a database of 300 using an Amiga. The computer keeps track of who enters, how many questions they answer correctly and most importantly, how long they take. Sounds like fun!

So, plan now to be there. Those dates again: 2nd-4th July, 1993 from 10am-6pm, Friday-Sunday. Space enquiries should go to The Others on (02) 906 5088.

Media Moments

On Couch Potato: Malcom Cooper of Alyangula reports that while watching *Couch Potato* one Saturday morning on the ABC, they had a segment where some schoolkids were doing animation on an Amiga 500 with *Deluxe Paint IV*. Indeed, many of the programs for children contain Amiga animation. Our question to you, Malcolm, is why were you watching it?

C64 Big Week

Andrew Gormly, the most published media spotter this side of Commodore HQ, writes a quick note.

"I was a bit annoyed about someone else getting in the Robbo report before I did, so I decided to fight media spotting! Here in Adelaide a movie called *The Philadelphia Experiment* was shown on the 6th January and in it a naval officer could be seen using a C64 in an old-style case for some unknown military purpose. This is the week of the C64 - on Saturday night the movie *Ground Zero* will be shown. I believe my report from its last showing here was my first media spotting - the lead character has a C64 on his desk with an unfinished chess game on the screen."

Don't forget to send your media spottings in as soon as possible. The first in with a big spotting we know is coming up will receive a one year subscription to *Commodore and Amiga Review*. So, scan those TV channels and then get writing! □

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- Software selection or mixing of 2 audio inputs with bass and treble control.
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- Full ECS/AGA support for full compatibility with new A1200 and A4000 systems!
- Compatible with popular titling software like AmigaVision™, Scala-Multimedia 200™ and Gold Disk's Video Director™.
- Separate versions available for standards around the world. Compatible with NTSC, PAL and SECAM.

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- ▶ Creating your own "classic" black and white videos using the Colorkill feature
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- ▶ High-quality keying effects with bitplane or chroma keying.
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G-Lock's dual-input audio panel switches, mixes and shapes sound for effects such as ...

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NOTEPAD

New Amiga Products Announced

The 4091 Zorro III SCSI-II controller and documentation are complete. Product availability was slated for mid-January - no delivery dates were available from Commodore Australia. Performance is estimated to be on the order of 10 MB/s with an appropriate drive.

The A4000 series DSP module is scheduled for release in late autumn, along with the corresponding 3.1 device support. It is a 32-bit AT&T chip, offering potential for items such as 16-bit CD quality sound, voice recognition, and high-speed modem support.

At least three additional A4000 series machines will be released in the next three months, including an EC030, 030 and tower model. The A4000T release in particular was mentioned in the context of mid-February. Other items of interest include quad-sync monitors, increased AGA chipset refresh rates, Workbench multimedia extensions, a third-party 386SX PCMCIA emulator developed in cooperation with CBM, ongoing development of full-motion video software and hardware solutions and negotiation with Kodak for Photo CD support.

Touch Windows

GSoft are now distributing a cost effective touch screen system for the Amiga. This screen attaches to the front of any monitor and connects to the computer via the serial port. Once the driver is installed, the Touch Window can be used for all functions normally driven by the mouse. The mouse remains active, so the user can choose the input device that most suits them.

An excellent, cost effective and importantly, durable, product, the Touch Window is a fraction of the price of a fully fledged conventional touch screen.

The Touch Window is being utilised to great effect in the education arena and Point of Sale systems where use of the mouse and keyboard are just not practical. The Touch Window is just \$549.00. For further information, contact GSoft (08) 254 2261.

DynaCADD 2D

Ditek International have announced *DynaCADD 2D*. This version is the 2D portion of Ditek's powerful 2D/3D Computer Aided Design and Drafting solution that has been on the market for the past two years. According to Oren Asher, President of Ditek, *DynaCADD 2D* will fill a specific market niche, "what we offer is a feature-rich, 2D design environment for under \$300 that competes with, has more features and is much easier to use than anything out there. A significant portion of the market designs primarily in 2D. What these designers want is easy to use, high-level 2D functionality at the most reasonable price.

"*DynaCADD 2D* offers exactly the same comprehensive 2D functionality as our full 2D/3D version. Not one single 2D capability has been omitted. This new product typifies our sensitivity to the market and is being offered in response to many requests. If a designer only requires our 2D functionality for the meantime, we are more than willing to make it available. One can always take advantage of the 3D capabilities offered in our other version later on," said Asher.

DynaCADD 2D will include both a 68000 and a 680x0 version. Features such as online help, context-sensitive documentation and a well organized and intuitive graphical user interface make *DynaCADD 2D* extremely easy to learn and use. *DynaCADD 2D* accurately sends all or any portion of any drawing at any scale, including best fit, to all popular pen plotters, dot matrix printers,

laser printers, PostScript printers or disk files. A MAKEPLOT utility is included to create or change any plotter driver. A full Vector Font Editor is included to create new or edit existing characters or fonts.

Ditek's head office is located at 2800 John Street, Unit 15, Markham, Ontario, Canada L3R 0E2 Tel: (416) 479-1990, Fax: (416) 479-1882.

Mansell Signs For Logic 3

After months of tough negotiation a deal has finally been struck between the world's greatest racing driver and the world's most ambitious computer accessory company.

The deal has given Logic 3 the rights to use the name and fame of Nigel Mansell to promote their unique "Free-wheel" controller for computers which is due to be launched early December this year.

Ashvin Patel, the Managing Director of Logic 3, commented enthusiastically - "We are naturally delighted with the prospect of Nigel joining the team. In fact the timing couldn't be better. Next year we were planning to tackle the American market with our products and now we couldn't have wished for a better boost to our efforts. We wish him lots of luck!"

In the meantime, Nigel was last seen testing the Freewheel at a secret location playing his favourite game. Freewheel will be available for Amiga, C64, ST at 29.99 pounds. Analogue versions for the Amiga and the PC will be available at \$99.95 (Amiga) and \$129.95 (IBM).

Scala Multimedia Application Wins International Award

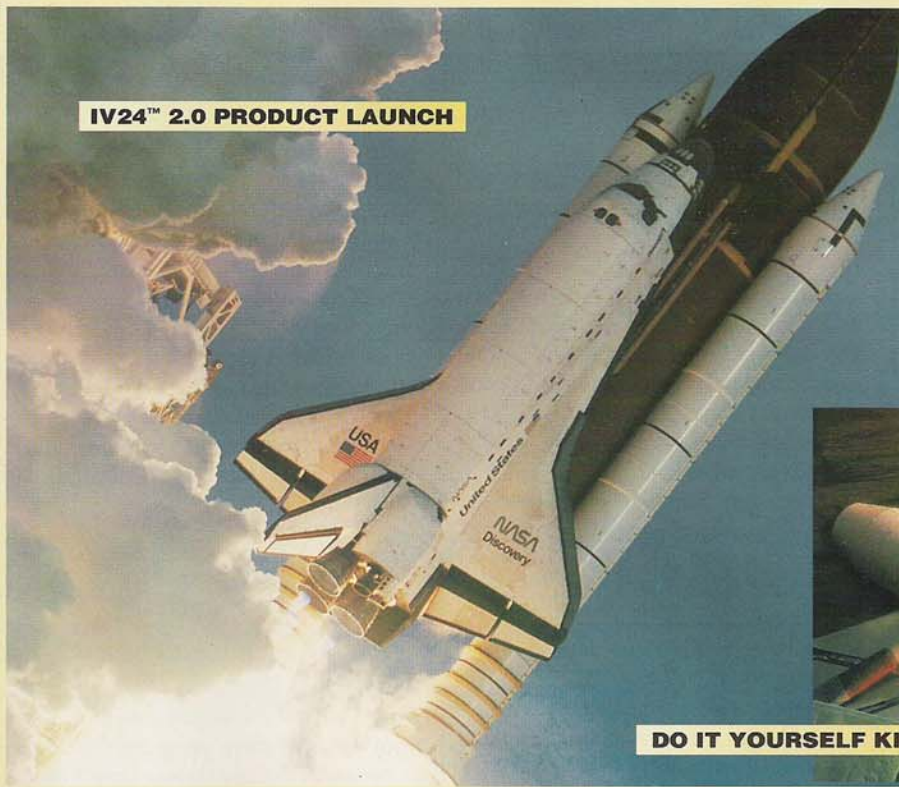
An Australian computer animation application made to explain the intricacies of a highly technical, Total Quality project recently won a major international award at a Singapore Exposition.

Jim Merchant and the Leak Seekers team had a dilemma. They had developed an outstanding system, one which was sure to be a winner around the world



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A3000
A4000

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MyLAD™ • Hot-switch between two video sources with 50 packaged video transitions for live action production studio effects.

Macropaint-IV24™ 2.0 • (New release—Significantly enhanced!) Paint 24 bit graphics from a stunning palette of 16.8 million colors. Then key video over graphics or graphics over video. Access ARExx scripts directly.

Caligari24™ • IV24's newest software bonus is a complete 3-D modeling/animation/rendering package. Desktop animation's future—on your Amiga today.

IV24 is on the launching pad today, awaiting your order for lift off. The decision—how to spend your video future—airborne at full thrusters...or grounded, waiting for parts?

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- but they had to find an interesting and informative way to let people know about it.

They're from the Supply System Services Branch of Sydney Electricity, which had devised a real breakthrough using the tools of Total Quality - a system which accurately located leaks in 132,000 volt underground electricity cables.

Oil leaks in electricity cables? Oil is used as a coolant and insulant, in High Voltage equipment such as transformers and, yes, underground power cables. The problem is that the earth movement around the cables causes leaks. On surface or pole mounted equipment, that's not a huge problem because a visual inspection can be made. But in an underground cable, it's not that simple.

Until now, supply authorities have had to dig up the cable (a very expensive process), freeze the cable at the midpoint, and see which side of the 'Freeze' the oil pressure dropped. Then they went back or forward to the midpoint of the leaking section and excavated and froze again. It sometimes took up to eight such trial and error attempts, taking up to 20 days, before the oil leak was found!

The Leak Seekers then improved a way of measuring the oil flow from each end of the cable, and via some highly sophisticated equipment determined, quite accurately, where the oil leak was. In fact, the system is so effective that normally one excavation only is required.

In the first ten months of using this system, it has saved Sydney Electricity more than half a million dollars. And they wanted to tell the world about it!

Back to the dilemma: how do you explain a process such as this so that people understand and, more importantly, appreciate it? Using an Amiga multimedia presentation, of course. Jim Merchant knew that the Amiga was the logical choice. So with the aid of an A3000, he linked to a Commodore CDTV system, and using *Scala Multimedia*, a short presentation was produced to show exactly how the oil leakage system worked. It must have impressed the people at Sydney Electricity, because the presentation won their internal award for the best production.

Spurred on by this success, the presentation was taken first to the Australian

Association for Quality and Participation presentation competition in Melbourne - where it naturally won. Then it was on to the big one: the 9th International Exposition of Quality Control Circle in Singapore.

And their Amiga-based presentation was a joint winner at the IEQCC Exposition. The team from Sydney Electricity tied for the first place with the multinational giant Motorola Corporation. Well done!

Amiga Expo 1993 in Melbourne

People in Melbourne have every right to complain. There has not been an Amiga only show within cooee of their front door for more years than we care to remember. Commodore and Power Peripherals have seen fit to correct this large anomaly.

Although nothing along the scale of World of Commodore, which is slated for later in the year at the traditional Sydney venue, Amiga Expo will be quite an event. The organisers are expecting several thousand people to visit the one day show, checking out the latest Amigas, new GVP products and enjoying some great buys from local retailers.

Multimedia, Desktop Video, 3D Animation and Design, new 24-bit Cards including OpalVision, 16-bit sound, games and lots more will be on display. Admission is \$5 for adults or \$4 for children. The address is Malvern Town Hall, Cnr. High St & Glenferrie Road, Malvern on March 28th. The doors open at 10.00am and close at 6.00pm.

For more information call Power Peripherals on (03) 532 8553.

Apology

In our January issue we inadvertently mixed up who supplied us a review program. The package was the *Chinese Audio Gallery*. Our review copy was supplied by Kaotic Concepts (03) 879 7098, to whom we owe a thousand apologies for failing to identify them on the day.

We are forever indebted to those companies who continue to supply us with good Amiga software to review. Thank you Kaotic, our apologies. □

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Carsmeat by Mike Vunck

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Letters TO THE EDITOR

What Future Amiga?

Dear Editor, 1. With the new '020 Amiga, will the same thing happen to the 68000 Amigas as the Atari ST?

2. It has been proven by many sources that 90% of the Amiga market are game players, thus giving us the same image as a Nintendo owners to IBM compatible and Mac users. What does that leave for serious users?

3. The A1200 and A4000 are here. The A500 has been replaced by the A600 which couldn't match the A500 in expandability for @*#! with it's Surface Mount Technology, which degrades the Amiga, making it as expandable as a Sega Master System II. The only advantage of the A600 being the: PCMICA slot, Workbench 2.05, the new ECS chip set and an inbuilt Hard Drive. These are not good enough reasons to buy an A600.

The people with A500s with Workbench 1.2/1.3 and expandable to 3 Operating Systems and all their thousands of dollars of peripherals gone from the market.

Operating Systems are being upgraded at a faster rate than people are having babies ... with software incompatibility between operating systems on the same computer. CRAZY!

I ask you what has happened to Commodore's loyalty and commitment? Just look at C64 owners and compare them to A500 owners three years from now. Sure there are upgrades which are fairly good, but all these things cost LOTS of money which most people because of the recession or some other reason can't afford.

Guy Nathan, Vaocluse

Ed: May I suggest some serious therapy here. A week on Windows should do the trick. Perhaps a day trying to

raise enough cash for a Mac. Or even an hour toying with MS-Dos. But seriously, Guy, you've lost the plot here, mate!

Take a look at what we've really got. Let's tackle it one point at a time. There's a lot of people listening here, and this needs to be cleared up. After that, no more what's happening to the Amiga letters ... okay?

Point 1, the '020 based Amiga. The A1200. A brilliant machine. To build one take an A2000HD, add an 020 accelerator plus something like OpalVision and you're looking at around \$3,000. The Amiga 1200 will sell for \$1499 - less with a trade-in. I say top value, three cheers, let's ship the sucker.

If you're afraid of change, bucko, then you're in trouble. Your car, your house, your whole life, will always be changing as new models, styles and better technology appear. Use the old for as long as you can afford, or cope, then move on down, move on down, move on down the road.

Point 2, the Amiga's image. You cannot change the perception of the masses without spending megabucks on advertising. Ask Apple. They do. Every Apple Mac owner pays upwards of \$700 towards advertising on purchase of a machine. Image, image and more image. Give me the cheaper computer any day. If they've got the wrong impression of the Amiga, tough. You've got the right impression - then get on and use the thing. Amiga is a great computer. In many respects it's the best in its field.

But let's not try and put it on a par with a PC. It ain't. Amiga is different. Amiga is animation, graphics and sound without plug in cards. Amiga is multitasking, colour and voice without kludgy incompatible add ons.

No one's asking you to upgrade to the A600. It's there for new Amiga owners so they don't have to add a clumsy hard drive hanging off the side, so they don't have to plug in new ROM, upgrade to the Enhanced Chip Set or fiddle with memory boards. The A600 has its place. Just how expandable it becomes remains to be seen. With the arrival of the new Amigas, I can assure you that peripherals for the older machines will not be made in as great numbers. You're right.

But that does not mean they will not be made. I guarantee GVP will keep pumping out all sorts of A500/2000 add ons for many years to come. There's simply too many owners out there who will want them.

"The A1200. A brilliant machine ... I say top value."

Progress has demanded that Amiga technology improve. Obviously that means something else will be made less desirable, but it's not redundant. Keep using your A500, it's a great machine. Upgrade when you can afford it - just as I'm sure you upgrade the car you drive when you can afford to do that too. You weren't expecting Commodore to give you a free upgrade, were you? After all Commodore is, strangely enough, in business to make money. And they employ people as does the industry which they've created.

As for operating systems, count your blessings, Guy. We've several versions of Workbench. That's not a bad thing. About one a year. And so they should. Every version has improved on the last. Incompatibility has been the fault of developers who do not follow Commodore guidelines. With recent versions the level of compatibility has been excellent.

Take a look at Macintosh and MS-Dos over the same time and you will see just as many operating system upgrades, if not more. It's the nature of the beast.

Well, enough of this. If you want a page of reasons to tell your friends why the Amiga is so good, use your Amiga more and find out! As for the C64 owners, they've had a darn good run. Ten years to be exact. Now that's support! Better than Apple or IBM. Commodore's loyalty is right up there with all other businesses. They want your money. In the process, they've made some fantastic computers which have been seriously improved upon of late. And you complain while I celebrate. □

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Ten Years of Commodore Review

In March 1984, the premier issue of a new Commodore magazine appeared on the newsstands. Andrew Farrell, editor of Australian Commodore and Amiga Review since Volume 1 Issue 3, takes us back over the years.

Off and Running

We kicked off 1984 with a \$3 cover price, 32 pages of editorial and Gareth Powell at the helm of *The Australian Commodore Review*. Where did Gareth surface from and why did he decide to start a Commodore magazine?

The answer lies partially in the opening paragraphs of the first issue. There Gareth writes, "The reason we are publishing this magazine is so that people who already own a Commodore may obtain more pleasure from their ownership - and anyone who is buying a microcomputer may be helped to make the right decision on a cost effectiveness basis."

In our first year, *Commodore Review* was filled with game reviews, lots of program listings and the odd productivity or hardware write up. At the end of every issue, a friendly rat offered a unique look of the industry in his column, View From The Hold. Yes, the rat was Gareth Powell. Today, the *Sydney Morning Herald* allows him to put his name to articles. Back then, I wouldn't allow it - for his own sake.

At that time the 5 Kilobyte, Motorola 6502 powered Vic 20 was getting toward the end of its life. The 64K 6510 Commodore 64 with the new Vic II chip was rocketing ahead. To meet Christmas demand at the end of 1983, three loads of C64s and Vic 20s had to be air-freighted into the country.

Of course, judging by some indicators, software was lagging a tad behind the growing demands of users. A Micro International advertisement for a C64 wordprocessor read, "The USA's No. 1 Word Processing package..." had a "16,000 Word Built-In Dictionary".

Gareth described our second issue as a "a small miracle that was not expected by Commodore management". He also managed to make some very clever predictions - "...the Commodore 64, basically as we know it today, will still be around in the 1990s." The C64 based 264 and 364 rumoured in our second issue were canned within the year. So, the C64 stayed.

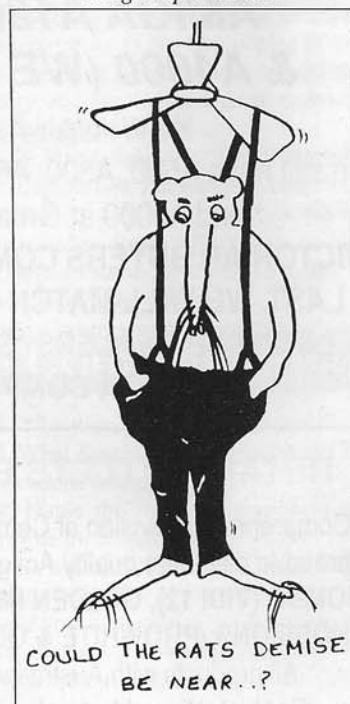
In that first year, Commodore also launched two other machines. We slipped up in describing one, the Plus 4,

as "the way of the future" and "another winner". Well, you can't be right all the time.

How about this for size - quoting our illustrious rat in his regular View from the Hold, "If the PC design is going to continue to dominate the market (which this Rat doubts)...". Today the PC of 1985 is alive and well - thanks to a few bolt on extras, and faster processors.

Of course, ten points for the Rat's cunning in slipping in the first mention I could find of the Amiga in *Commodore Review*. In the June issue of 1985,

The Rat - maybe an irate reader caught up with him



Vic 20 - towards the end of its life



View from the Hold quietly mentioned the Amiga as the machine at the cutting edge of graphics technology.

In 1983 the portable SX-64 was shipping, Commodore's 1526 was declared lemon of the year and Commodore founder, Jack Tramiel, made a hasty departure to Atari. He was hoping to land a new company up for grabs, but the new Commodore management beat him to it. Unbeknown to most, the Amiga Lorraine company and the Amiga computer became the property of Commodore. By then, Atari were already running ads on Australian television with Mr. T touting the graphics and multitasking power of this fangdangled new machine. Two years later, it surfaced as the Amiga 1000.

By late that year, Commodore's recently launched Plus 4 and C16 - with better BASIC, more memory and built in software - were finally shipping in some numbers.

1985 - The Second Year

In my opening editorial for the year, I complained about the number of dealers dropping the Commodore 64. The following month I opened with comments about the Commodore market drying up. It must have been a negative time - but despite all this, all is much the same eight years on. People are still complaining about the number of dealers dropping the Amiga, falling demand, the competition and all the same old things.

By now the Plus 4 and C16 (at \$299 and \$199 respectively) were enjoying some short lived success, C64 games were appearing at an amazing rate of knots, the C128 surfaced and the first Commodore PCs started shipping for \$3,600!

Two of our now famous columns started - Ram Rumbles and Adventurer's Realm. In the April/May issue, the first ever photo of the editor wearing sun glasses appeared. The look stuck and the glasses



The first ever photo of the editor wearing sunglasses

stayed for several years. One of our readers summed up the magazine's progress nicely. "...unlike the others - there's hardly any crap!". Thanks to John Pointing for that one.

By mid year we had hit 48 pages and the influence of our musically minded advertising manager was slowly pushing up our coverage of the computer music. In July we previewed the Amiga, Vic 20 owners complained we were abandoning them and our disk magazine was up and running. By the end of 1985, the computer industry was filled with rumours of the amazing new Amiga, coming soon!

1986 - Amiga Arrives

In my January editorial I made a grave mistake. About the Amiga I wrote, "... a machine of such merit can easily

rest on its amazing abilities". Someone at Commodore must have been listening, because soon after its launch Commodore USA ran into all sorts of problems which literally did leave the Amiga to rest on its own merits. In fact, the old saying in the industry is that the "Amiga has succeeded despite Commodore."

That year Commodore US failed to front up at Comdex, the biggest computer show in the United States at the time. Fortunately at the Sydney PC show, the Amiga was there and promptly stole the show.

Graphicraft, Textcraft, Musicraft - they were all the software we had to play with. Despite this, the old A1000 still came up smelling of roses. The glowing prose seemed never ending as month after month rolled by extolling the virtues of this wondrous new machine. Indeed, the Amiga was revolutionary in its time.

C64 owners were deluged with drive accelerators and printer interfaces. They played away at some great new games, with better music than ever before. Late in the year the "C" version rolled out, with a new case and fewer chips. Adventurer's Corner grew to become Adventurer's Realm and our first regular Amiga column started.

1987 - C64 Matures, Amiga 500 and 2000 Arrive

It was the year the Commodore 64 enjoyed a renaissance. GEOS arrived - a new point and click interface which gave the old C64 a new lease of life. New productivity titles included *Thinking Cap*, *Pocket Planner*, *Writer*, *Artist 64* and *OCP Advanced Art Studio*. Several new C64 drives appeared and the Dolphin DOS accelerator gave the C64 15 x faster drive speed. It was a good year for those who had stuck with this great machine.

C64 owners were amazed by the discovery you could put sprites in the border and

The portable SX-64

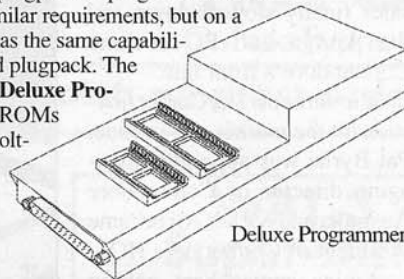




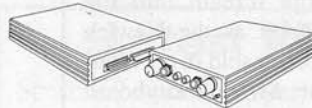
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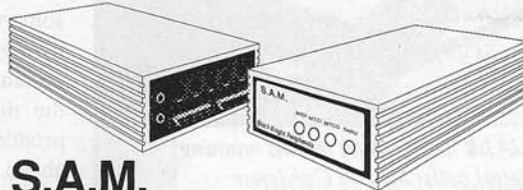


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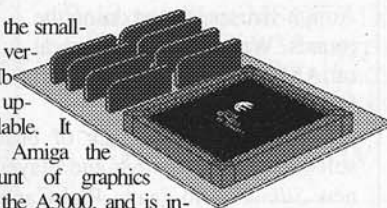
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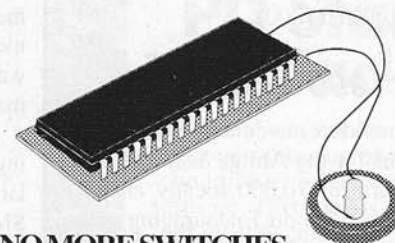
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well and *Dragon's Lair* is launched. This was the year C64 sales finally slowed down and the Amiga and PC became Commodore's front line.

The famous StarCursor joystick hit the market and in June, Pat Byrne was appointed managing director of Commodore Australia and Mehdi Ali became President of Commodore HQ.

Amiga games kept getting better, *Deluxe Paint III* hit the streets in NTSC versions as dealers imported direct and the first Amiga viruses started doing the rounds. We also saw the arrival of AMAX, Apple Macintosh emulation for the Amiga.

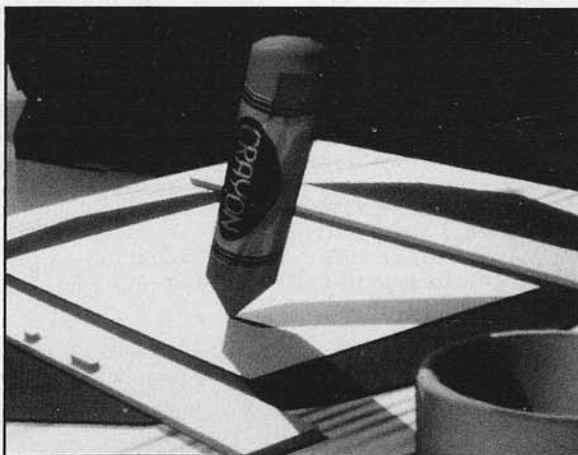
We lamented the lack of business software for the Amiga and played the new *Silkworm* to death. Phil Campbell joined us as entertainment editor. Despite rumours of new eight bit machines continuing to flow forth, new C64 third party products were now a mere trickle.

Digiview revolutionised image digitising, over one million Australian homes owned up to having a home computer, with Commodore claiming 42% brand share of the home market (machines under \$1000).

1990 Volume 7

Commodore announced new marketing plans for the Amiga as the number of owners hit 70,000 locally and 1.5 million world wide. Encouraging as the numbers were, the truth is sales were still moving along slowly compared to the growth of earlier Commodore models. Something was needed and the team at Commodore were preparing to deliver. It all sounded great. Meanwhile, we all waited and waited, and waited for Workbench 1.4.

A visit to Australia by Irving Gould quashed rumours of new 8-bit technology. The C64 was expected to sell another million, and it did. Irving dreamed of at least one in every two C64 owners one day upgrading to the Amiga. Gould hinted at the A4000, accurately predicted growth in multimedia and desktop video, and smiled broadly when



Amiga 24 bit graphics by award winning digital artist Martin Gardener

asked about CD-ROMs. CDTV was just around the corner.

Stunt Car Racer and *Xenon II* entertained us and everyone was busy expanding memory, adding hard drives or plugging in accelerators. The peripheral market exploded, dragging with it the name GVP to immense success.

In June, the first issue of *Professional Amiga User* rolled off the press. Commodore launched the Amiga 3000, *AmigaVision* and Workbench 2.0 around the same time. A good year by some measures - with a number of strong software releases including *Showmaker* and major upgrades to many existing titles.

However, Commodore's big marketing plans did not shape up so well. A large investment in two exhibitions at SMPTE (a specialised show for the film and TV industry) and the World Conference on Computers in Education created a lot of excitement within the Amiga world. Unfortunately it did not sell many more Amigas. In our April issue we hoped, recommended, Commodore would hold a Commodore show. But it was not to be until next year.

1991 - The First World of Commodore Show

Amazingly, Workbench 2.0 is still not shipping! Stories of CDTV are hotting up for the launch at the first official World of Commodore Show in Australia.

Compuserve Australia was launched, the Amiga 500 hit \$699, accelerators got faster and a new breed of 24-bit display systems started to surface. Australia's own ColorBurst looked promising, whilst the USA saw the Amiga scream into the video market as the Newtek Video Toaster sold in big numbers. The Miracle keyboard sold to music lovers, image rendering and modelling programs continued to enthral artists and the numbers of heavyweight productivity programs jumped ahead.

World of Commodore was a success with around 30,000 people visiting Sydney's Darling Harbour - a number comparable with similar shows for the PC! Of course, pressure from falling prices on the MS-DOS market was mounting, and more and more letters were rolling in from readers asking what the future held for the Amiga.

1992 - Workbench 2.0 and the New Machines

The year started with some amazing bargains. An Amiga 500 could be had for \$499 during a trade-in deal through several Amiga resellers. Workbench 2.0 arrived, along with the Amiga 600, A570, Amiga 4000 and just prior to the year's end, the A1200 turned up.

Commodore announced lots of add ons, and gave us an indication of where Amiga technology was headed. 24-bit paint systems continued to grow in number, along with video processing and frame grabbing hardware. Opal Technology launched the revolutionary Opal Paint system. Rumours of a PAL toaster grew stronger and Morphing turned up with performance just like the big boys.

Professional Page 3.0, *Professional Calc*, *Wordworth 2.0*, *Final Copy 2.0*, *ProWrite 3.0* and *Superbase 4.0* made headlines as the numbers of serious Amiga software expanded monthly. High end animation products, desktop video hardware and faster machines was the over-riding theme of the year.

Another World of Commodore Show proved last year was no flash in the Darling Harbour and Commodore proved they had not been sitting on their laurels half as much as everyone thought. MS-DOS machines got much cheaper, Windows improved, but at the end of the year, the new Amigas made all that MS-DOS stuff seem fairly hum.

And at the end of the year *Commodore Review* started distributing in New Zealand.

1993 - Volume 10

March 1993, and we're into our tenth year. News is that Commodore are relocating their manufacturing closer to key markets, including Australia. This will mean less shipping time and costs. It also means Commodore are obviously convinced the Amiga will never be a big seller in the USA. Nevertheless, the niche markets over there are doing very well, thank you very much. Australia is much the same story, although Amiga is still popular as a home machine. In Europe, Commodore are laughing all the way to the next model.

Back at *Commodore Review*, our C64 coverage is now a mere column. On the Amiga front, take a look at the number of advertisements and you'll see the industry has quadrupled in size. We're also on the verge of adding more pages and colour, which will mean a small increase in price.

World of Commodore has been announced for '93, more new hardware is expected this year, along with a truck load of major new third party add ons and software.

PC games designed for 256 colour display can be moved onto the new Amigas and improved upon easily. We have faster, more powerful hardware than any other platform. We have the best value for money. We have a great operating system. Despite all the ups and down, Amiga has matured well. There's still a few rough edges and given the current economic climate no one could rightly expect miracles. However, I can say I'm glad to be here ten years on. It's been a lot of fun!

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Which Directory Utility?

Part 2

DirWork V1.51 and DiskMaster 2.0

Andrew Leniart concludes his exhaustive comparison of the best directory utilities available. Is there an outright winner?

DIRWORK V1.51:

Author - Chris Haymes

Yet another highly configurable directory utility, Chris has done a commendable job of fitting in so many useful features into such a small amount of code when compared to other programs. *DirWork* has a definite look and feel, different to the others.

One of the things that one notices right away about DW is the fact that a lot, if not most, of its best features are actually built into the program. Clever programming and thoughtfulness which are no doubt a direct result of end user requests make this Directory Utility stand out from the crowd a bit in the way of individuality. Here's a short list of some of the unique features to be found in *DirWork* and a brief explanation of what they do.

Features

- Picture SHOW utility which cleverly loads the next pic while you are viewing the first. Also capable of showing Icons just like *DirOpus* does though does not as yet handle viewing of fonts. Types of pics DW will automatically show include

SHAM and some DHIRES pics. SOUND files and animations may also be viewed painlessly with the in built utilities.

- A mouse accelerator which will speed up your mouse pointer for you, eliminating the need to run another third party utility to achieve this task. Along with that comes a SunMouse feature which when selected active via the configuration utility, makes the current window under the mouse the active one.

- The ScreenBlanker takes care of your monitor for you when doing nothing for a while and helps prevent phosphor burn in while the "Fast and Smooth Floppy Dirs" function allow you to get a directory listing from a floppy disk up to two times faster than one normally

would be able to. The latter works brilliantly and drive heads don't grind backwards and forwards anywhere near the amount they normally do when accessing floppy disks.

All that along with a host of user configurable items make DW worth while looking at by anyone's standards. There are however a few drawbacks to the program and one of the main ones would have to be to my mind "ease of use".

Configuration

With the default set up, *DirWork* looks daunting to a new user of the program and tends to put you off trying to learn to use it. General appearance is cluttered with ready configured buttons and gadgets and I found the configuration utility hard to understand and use despite the helpful comments put in along with each function.

Configuration is done via a hard to understand text method. To compensate for this, Chris is prepared to send registered users any particular button configuration they require if it's at all possible. This is a prime example of an excellent support service from a local product, however for my money, I would prefer to see the configuration utility rewritten to make it more intuitive for a novice user.

Final Words

DirWork is without doubt a powerful and highly configurable directory utility. It's hard to come to terms with if used to the likes of *Sid*, however for those that are prepared to persevere with it, or are not already set in the ways other directory utilities go about doing things, then the end rewards could be high.

Unlike *Sid*, *DirWork* is a true shareware product. There are no crippled features and user support is local and said to be very good. For the recommended donation fee of

DirWork's options screen.

T-Edit V1.51a			
AutoPoint(SunMouse)	N	Task Priority	Quit
XCopyRootBlocks ok	B	MouseAcceleration	Quit & Use
Activate Text Gad after GetDir	B	MouseAccelerationThreshold	MainMenu
No Duplicates of IW	FFFF	ScreenBlankTime(1/10secs)	
External Config File	N	BufferedDienumber	FFFF
Buttons Below	BB	VHK time(1/10secs)	FFFF
Position independent ButSelect	N	Window LeftEdge	N
Mouse Acceleration	FFFF	Window Width	256
Don't Add Tools to workbench	FFFF	Window Height	256
Text viewer start in ANSI mode		Screen Width	256
Busy Pointer	FFFF	Screen Height	256
Right mouse activates window	FFFF	Colors13	FFFF
Parent uses buffered dir		Colors24	FFFF
INTERLACE Screen		Colors35	FFFF
PRODUCTIVITY Screen		ScreenColor0	ScreenColor1
		ScreenColor2	ScreenColor3

Aus\$35.00, it is certainly good value for money by anyone's standards. Grab a copy from your local PD library and give it a try. You have absolutely nothing to lose.

Register your copy of *DirWork* with Chris Haymes, 6 Pamela Crt, Blackburn Sth Victoria 3130. Australia registration costs \$35.00.

DISKMASTER 2.0: **Author - Greg Cunningham**

DiskMaster has changed dramatically from the day of its first release. Offering a great deal more in the way of configurability and full Arexx support, it certainly can't be overlooked when making a choice of which directory utility is the one which suits you.

Installation

There is no installation software included with the distribution diskette as

the software simply does not require it. By dragging the *DiskMaster* Icon over to your hard drive via Workbench, you are ready to go. The manual is well written and easy to follow and has a good table of contents at the front which makes flicking to the appropriate section you need help with a quick and simple process. Keeping it at that page though is another story as the manual is not of the ring bound type and tends to flip pages of its own accord.

Defaults

Double clicking on the *DiskMaster* icon brings up a custom four colour screen with three windows which are of a totally different type to the other directories covered in this review. *DiskMaster* uses Workbench look-alike windows to display files and directories and in a similar fashion, presents commands in a long thin window in the centre, keeping to the traditional look of the original

DiskMaster.

Besides the command window, there are also pull down menu items which contain more commands and functions. There is nothing stopping anyone from placing those same functions in the command window or vice versa.

The screen's title bar is used as DM's feedback window where it gives you information about any process happening at any time. While sitting idle, the title bar displays time, date and memory information.

Using *DiskMaster* from its default setting is pretty much intuitive with little need to refer to the manual for general directory utility work like copying and moving files around within directories. When it first fires up, both file windows display a list of physical devices and assigned directories each indicated as such by either a (VOL) for volume name, (DEV) for a physical device and an (ASN) for assigned directories. Double clicking any of these takes

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you there and gives you your starting point to begin work.

Commands

The default commands of *DiskMaster* are pretty ho-hum. Designed as a no nonsense tool to manipulate your hard drive's contents with, everything you need to achieve most goals is there with a minimum of fuss. It misses a lot of the bells and whistles provided as stock standard by the likes of *DirOpus*, *Sid* and *DW*, however with a bit of work and effort, could probably be configured to provide quite a few of them via third party utilities.

Archiving

Three archiving types are supported by *DiskMaster*, these being *Lharc*, *Arc* and *Zoo*. Frustrating was the fact that these functions would only work if the archivers were located in the "C" directory of the boot disk. I like to keep third party utilities like archivers in a separate directory of my hard drive and set a path to this directory via the startup-sequence when booting up. *DiskMaster* does not take note of the path and expects that all commands issued will be located in the "C" directory.

The manual was of little use for instruction in how to modify an existing configuration, so to solve this problem required experimentation. I found this a major shortfall in the instruction manual.

Built in Features

As mentioned previously, *DiskMaster* is not very generous on built in snappy features. It has the standard ones like viewing IFF pictures, hearing 8SVX sound files, reading Ascii and HexRead built in. Some support for animation files has been provided, requiring you to get a hold of a public domain program called *View* by Michael Hartman.



DirWork has a clean simple design, with lots of built in functions.

Via its pull down menus, *DiskMaster* also caters for Formatting floppy disks and doing diskcopies, however it's obvious little thought went in for new users when the programmer put a couple of these functions into the product.

Selecting "Format DF0:" from the pull down menus does as one would expect, bring up a confirmation requester before commencing with the format. However should you miss your mark when making the selection and accidentally select "Format DF1:" instead, then any disk in drive DF1: without the write protect tab set would instantly be destroyed as DM does not ask for confirmation of the command before commencing the format. Same goes for the "Clear DF0:" menu item which performs a Quick format of a disk in DF0. To my mind, it would have been far better to elaborate via the user

manual on how one could make the program skip the confirmation requester for such destructive operation if a user wanted to, rather than make the feature already available as stock standard in the program. The extra second or two it takes to click on an OK gadget to confirm an action like a format is far better than to risk accidental destruction of valuable data on a disk left in a drive.

Configuration

Not a great deal more can be said about *DiskMaster*. Configurability is good though done in a somewhat clumsy fashion when compared to the likes of *Sid2* and *DirOpus*. If you like your command buttons at either the top or the bottom of a directory utility, you're in for a disappointment as though you are able to resize the command window to be along the bottom, the commands do not wrap themselves to take advantage of the full space.

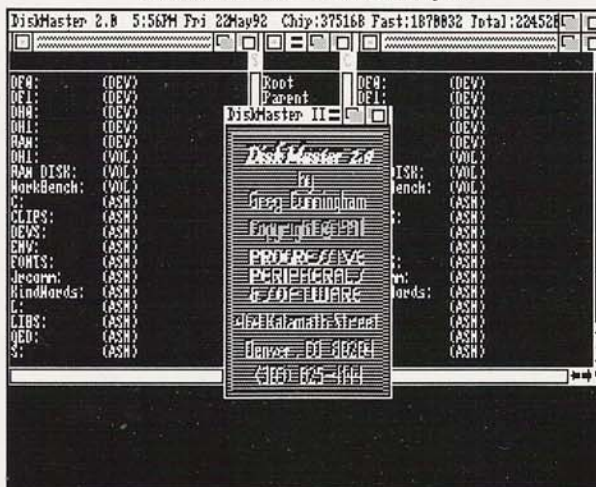
I suppose the one thing that stands out with *DiskMaster* which is not available in any of the others is the ability to have as many source and destination windows as you like. By selecting the "New Window" command from the pull down menus, you instantly get another file display window to work with. You can flip around any of the windows on screen and select any one of them to be

the active source or destination window. All windows are resizable so can be placed anywhere on screen for a fully customized set up. You then have the option of saving this as your default set up.

Conclusion

DiskMaster is a fine piece of programming but in my opinion, is leaps and bounds behind the others in the ways of some features and capabilities. If what you are after is a no frills directory utility which will do most of what you want

Diskmaster 2.0 - Workbench feel





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to do and have a very WorkBench feel to it, then it will probably suit you down to the ground. For my money though, I'd be looking at the others.

Review copy supplied by Progressive Peripherals & Software, Inc. (Ed - Since a rather nasty fire shortly after we received this program for review, we've heard naught from Progressive. Hopefully they will return at a new address soon.)

Which of the Four?

In my own humble little writing career, this comparative review would have to be the largest and most demanding project which I have ever undertaken. I found it hard work yet at the same time, highly enjoyable and satisfying.

Each product covered in this column was used for at least a week before review. The exception to the rule was *DirWork* by Chris Haymes as I could not seem to come to terms with his product to use it to its obvious full potential. I feel that there was a need to point that fact out as I know of quite a few users of the product via my bulletin board that swear by it and would not use anything else. As I mentioned earlier, trial of DW is absolutely free. Check it out for yourself and you be the judge of what you see.

Having said that, all of the software compared in this review seemed rock solid. None of the products crashed at any time and I did not experience any bugs in any one of them. That is not to say there may not be any, but I personally found none.

Similarities

Comparing the two look-alikes, *Directory Opus* and *Sid 2.0*, it is obvious that the two authors have borrowed ideas from each other during the production of their products. There



All those windows make it easy to configure...

are just too many similarities between the two utilities to believe that both programmers could have exactly the same ideas for some of the functions and general appearance of their products. Who borrowed more from whom is hard to say, but I personally do not see any problem with the fact either way.

Notable differences between all four of the Directory Utilities are the amount of hard drive space they take up. This should give you a bit of an idea of space required.

Sid 2.0 with Help Data Files installed will need a whopping 479,113 Bytes of your precious hard drive space. This is significantly reduced to 262,762 Bytes if you decide you do not need the online help feature available.

Directory Opus with its Help Data Files installed fares a little better in this regard, though still needs 294,637 Bytes of hard drive space. Leaving out its help data files gives a moderate saving and brings the required space down to 263,569 Bytes.

Dir Work V1.51 has no online help feature available and only takes up a painless 110,428 Bytes of space on your hard drive, yet still appears to have most of what could be regarded as the more important features of the other two plus a few unique ones of its own.

DiskMaster II fares best in this regard and requires the least amount of space of the lot. A slim 68,714 Bytes is all that it requires and you have a fully working directory utility which will do most of what the majority of users require.

Making a Choice

So how to choose which one is for you? Best way is to check out each one and have a look for yourself. This is easy with *SID* and *DirWork*, but you would need to have an understanding friend which owns the commercial ones to be able to have a try of those as sadly, demo versions are not available for either of them. If you can't get to use a friend's copy of either one of them, then I hope that what I've presented here will be of some help for you to make a decision.

All of the above products performed well with no sign of bugs on the machines stated at the start of this review. All are Workbench 1.3 and Workbench 2.0 compatible and work fine with both operating systems. Indeed, all of them also have little features which are WB2.0 specific for those of you lucky enough to have already have the upgrade. □

Directory Utility Comparison Chart				
Available Features	Dir Opus	SID 2.0	DirWork	Diskmaster
Ability to Iconify	YES	YES	YES	NO
Arxx Support	YES	YES	NO	YES
Unlimited Gadgets	YES	YES	NO	N/A
Archive File Support	YES	YES	YES	YES
Auto Show Pic's	YES	Via Ext Ute	YES	YES
Auto Hear Sounds	YES	Via Ext Ute	YES	YES
Fast Floppy Drive Listing	NO	NO	YES	NO
Directory Buffering	YES	YES	YES	NO
Configurability	95%	98%	98%	88%
Online Help Function	YES	YES	NO	NO
Multiple Window Support	NO	NO	NO	YES
Workbench 2.0 Compat	YES	YES	YES	YES
Custom Pull Down Menus	YES	YES	NO	YES
Installation/Configuration	V. EASY	EASY	CONFUSING	EASY

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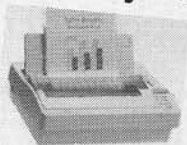
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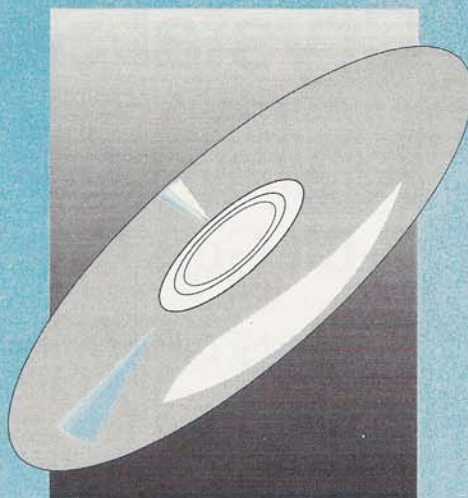
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Crystal Sound

Audio Digitising 8-Bit Goes One Better

by Daniel Rutter

Black Knight Peripherals have been advertising for months what appears to be the 8-bit sound sampler to beat them all; by slaving sample rates to the Amiga's crystal locked video they say sample jitter is eliminated, and other significant additions certainly made the CrystalSound a gadget to be reckoned with.

Now I have before me an actual real live CrystalSound sampler, which I suppose gives consumers at least a sporting chance of actually being able to buy one by the time this gets to print.

The sampler came without a cable to connect it to the computer - after a terse phone call a cable was swiftly delivered, and I was assured serious consideration would be given to the inclusion of a cable with every sampler sold. Now there's a radical concept.

After this little drama, it transpired that the sampler as supplied was, not to put too fine a point on it, busted. It behaved as if I hadn't even plugged it in. Back it went, but another one was shortly supplied and lo! it worked.

Hardware

The CrystalSound looks a bit like the GSoft Audio Imager's hick cousin from out of town. It has the same twin line level RCA and quarter inch phono microphone inputs on the front, two gain knobs - which fit badly to their shafts - and a switch to enable the printer pass through port on the back, so you don't have to swap plugs.

The case is metal and the sampler's pretty solidly constructed - the PCB layout isn't the sexiest

I've seen but on cursory inspection has no glaring faults.

Improved Sampling?

The CrystalSound's major claim to fame is that, according to the ads, it's the fastest 8 bit sampler west of the Pecos, with stereo sampling up to 88,672 samples per second - the principle is that 8 bit sampling at 88 kilohertz (thousands of samples per second or kHz) should more than match the quality of compact discs, which have 16 bit sampling at 41.5kHz.

There are two problems with this premise, for sound sampling purposes. The first is that anyone running a 68000 based Amiga - which is most people - won't be able to sample faster than 50,669Hz in mono or 44,336 in stereo without their samples sounding like complete garbage as the processor fails to keep up with incoming data.

Owners of 68030 machines can go right up to the maximum speed - I don't know about 68020 - and 040 owners, unless they have full 32 bit architecture

(i.e. are running 68040 A3000s or 4000s), will have performance slightly slower than 030. My own 68010, predictably, didn't do any better than 68000.

The other problem with the CrystalSound's approach concerns the technical aspects of sampling. The highest reproducible frequency at a given sampling rate is given by dividing the rate by two; for safety there's normally a margin of speed on top but that's the way the mathematics works. Hence a rate of 10,000Hz will reproduce only up to 5kHz.

Human hearing, often quoted as 20Hz to 20,000Hz, is really closer to 20Hz-16kHz for someone in their early twenties, and high end response rolls off steadily as you get older. So in order to reproduce all audible frequencies, a sampling rate of about 32kHz is needed; CD puts in an extra margin and does 41.5 and Digital Audio Tape (DAT) does 44kHz.

But both of these recording methods are 16 bit - every sample is stored as 16 individual 0s or 1s. Thus the total number of possible amplitudes that can be expressed by a given 16-bit sample is two to the power of 16, or 65,536. On the other hand, standard Amiga samples have only eight bits per sample, and hence give two to the power of eight or 256 possible amplitudes.

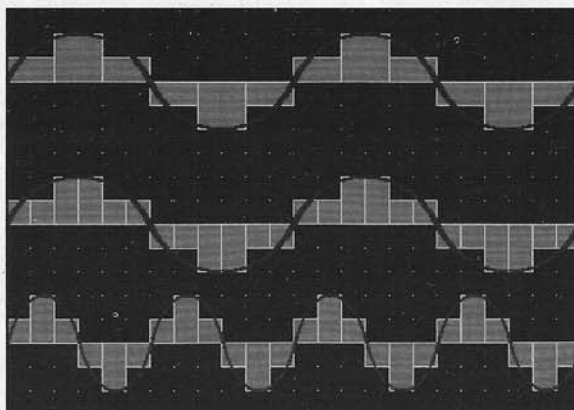
The number of expressible amplitudes makes a big difference when, as is the case here, one method gives 256 TIMES as many! You see, cranking up the sampling rate on an eight bit sample raises the highest frequency recordable - in the case of the CrystalSound the highest frequency for a fast machine is more than 40kHz, which is around the frequency of those old ultrasonic remote controls - but

does nothing for the limited number of possible amplitudes, so in close up the recorded sound still looks like a staircase - it's just got more individual samples on each step!

To clarify this, look at the accompanying diagrams.

Figure One shows, at the top, a hypothetical sample of a waveform (the red line) done at a given sampling rate and resolution. Note that for simplicity and to prevent myself going mad, I've reduced the number of bits in each sample to two, for four

Figure 1



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2. Adding pictures to your documents is easy. You can place any standard Amiga IFF graphic onto your page, including HAM and EHB plus MS-DOS PCX and BMP. Wordworth can flow your text around the picture in many ways, even following its contours if you so desire. You can even scale and move the image with your mouse.

3. Using the latest in outline font technology, Wordworth provides an accurate preview of what your printed document will look like.

It also produces brilliant jaggy-free output on a huge number of dot matrix printers.

You can preview two facing pages and print to postscript.



Wordworth 2.0 - Over 100 improvements and new features.

4. Wordworth sports a carefully researched interface. It's been designed to be as easy to use as possible.

Version 2.0 has a slimmer tool bar, with twice the functionality yet retaining its simplicity. The 24 commands included, cut, paste, print, typeface and styles-even on-line help, if you need it.

5. Wordworth 2.0 is new - in fact there are over 100 new features and improvements.

You can now produce documents with multiple columns, a table of contents, index and end notes.

Of course, Wordworth's excellent control over text formatting makes it ideal for virtual desktop publishing.

6. Revolutionary Intellifont Technology produces on screen fonts from 8 to 800 points!

It also comes with 17 Agfa Compugraphic fonts, just about the best in quality around.

Learning Wordworth is as easy as using it, with WYSIWYG, everything appears on screen as it will in the document.

7. Set up hot links between Wordworth and other Amiga programs.

For example, if you decide to change a picture in DPaint, with the hot-links tool in use, it will automatically change the old image in Wordworth! A very useful benefit indeed and just one of the many new features of version 2.0.

Dollars-per-feature, no other Amiga word-processor comes close.

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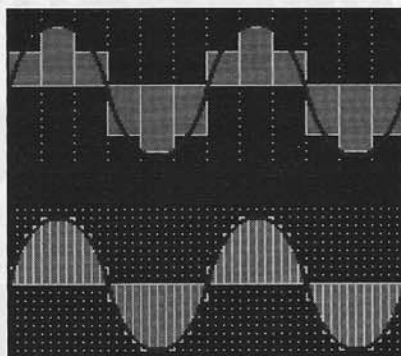


Figure 2

possible amplitudes (well, actually I used five to make it look nice but don't tell). The principle is the same.

In the middle of Figure One is the same waveform and the same resolution, but with double the sampling speed. As you can see, twice as many samples make no difference at all.

The bottom of Figure One shows what an increased sample rate IS good for - recording an initial waveform with double the frequency.

Figure Two shows, at the top, the effect of increasing the sample resolution to four bytes (16 possible amplitudes). There are still not many steps, but those that there are conform more accurately to the shape of the waveform.

The bottom of Figure Two shows that increasing the sample rate, to four times faster than the top picture, IS useful, but ONLY in conjunction with increased sample resolution. This sample, even though it only has 16 possible amplitudes, corresponds quite accurately to the simple waveform; a much better effort than you'll get from four (or even five!) amplitudes, no matter HOW fast you sample.

Is Faster Better?

So why, I hear you ask, did Black Knight bother making a sampler that can go so amazingly high? The answer is simple - data acquisition. If you want to convert an analogue signal to digital data, a sound sampler hooked up to a PC is a VERY cheap way to do it, and for this the CrystalSound is ideal. But let's face it - there aren't a lot of people who want a digital electronic test bench on their desk.

Getting down to brass tacks, the sam-

ples I made with the CrystalSound this morning were very good - low noise, clear, no sign of saturation when the gain knobs were properly adjusted. The sampler comes with a small sample acquisition program, which allows no manipulation of the recorded sound but is perfectly suited to getting a sample into the machine.

You can also use the CrystalSound with Audio Engineer II by using the A.M.A.S. setting, according to the manual - unfortunately I couldn't verify this.

Software

Also on the CrystalSound disk is Mac2Raw, a utility to convert Mac format sounds to Amiga, developer information for programmers to make use of the CrystalSound, the other BKP programs TimeCode, RexxTime, AnimBeat, BurnOSDMO, EpromDMO and HWConfig, all of which are only useful if you've bought other BKP hardware and have nothing at all to do with the CrystalSound, and the PD programs Voice Command Line INterface, for voice control of the CLI, Spectrogram, which rapidly generates spectrograms from samples, SUPERECHO for real time sound effects and Rec2Disk, which records samples direct to hard disk for functionally unlimited sample size.

The manual is very slim but perfectly adequate; a ReadMe file on the disk deals with some minor upgrades and all of the accompanying software is fully documented on the disk.

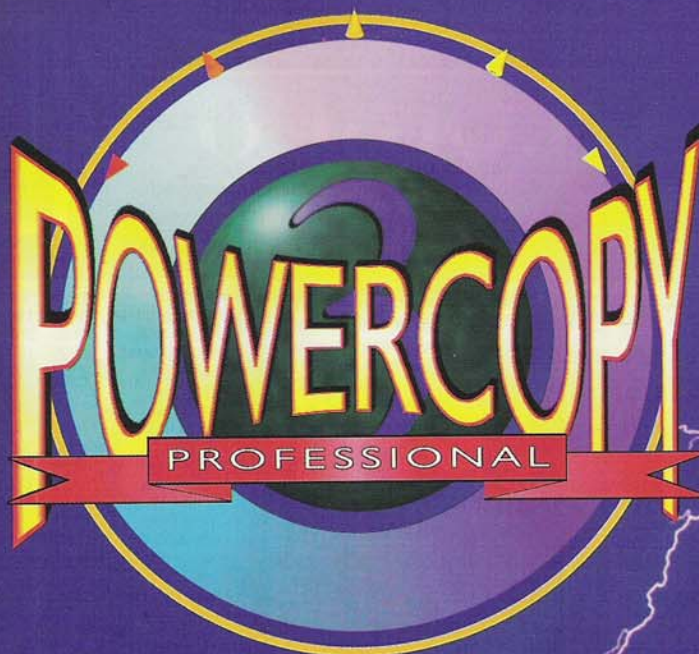
Unfortunately, since doing those first test samples and with nothing in the interim more drastic than leaving it sitting on a desk, the sampler has gone berserk, and now makes a noise like sand in a tumble dryer on top of anything I try to sample. It seems to be an earthing problem, since it's very sensitive to nearby earths and RF interference, but I have no intention of fiddling with the hardware myself; this failure wasn't triggered by my opening the gadget to examine the PCB but arose hours later!

From what I've seen the CrystalSound, while theoretically excellent, needs a few small problems ironed out. No doubt Black Knight are attending to this. □

Qty.	Product/Program Name	Computer	Disk Type	Price

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Backing up is not a light-hearted matter! Greg Wall compares the two commercially available programs to ensure your data is secure.

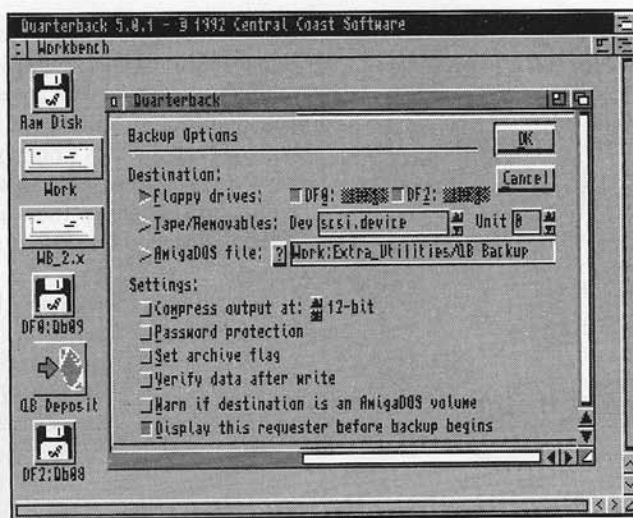
Enter hard drive backup programs, designed specifically to make a backup copy of either part or all of the contents on your hard drive or drives. Workbench 2.x owners will find a backup program called BRU on their System partition as a standard part of the new operating system. A functional program, but lacking some of the elegant features of alternatives.

Both programs have the option to use password protection on your backups and have built-in backup and restore filters. With these you have the

Installing *Quarterback* on your hard drive is just a case of dragging it into your chosen partition of your harddrive.

When the backup/restore is finished, part of the session log details may include rate in megabytes, the compression efficiency as well as the regular listing of all files backed up or restored. *Quarterback* also has a compare mode (similar to *Ami-Back*), which will read

ACAR 33



Quarterback Options

the data on your backup device, and check to see that it is the same as the data on your hard drive. When working with a backup you can tell both *Quarterback* and *Ami-Back* to change the archive flag on all the files you backup. By marking the files as archived you have the opportunity to come along at a later time and back up only the un-archived files.

Whenever you make any changes or add new files to the hard drive, these files are considered as un-archived. Therefore you can selectively make a second or partial backup of only the new or changed files, without having to back up the entire hard drive or partition.

One down side of *Quarterback* is that you can only back up one device or partition at a time. Although this may not seem like a major drawback to the average user, for people backing up to tape or similar devices, the ability to back up two or more devices or partitions at once to tape and leaving it to do its work may be almost a necessity.

Although *Quarterback* gives you the option of appending the tape, i.e. using the remaining part of the tape for other partitions, *Ami-Back* lets you back up as many partitions or devices as you wish in one go.

Quarterback also has a SCSI Interrogator, which can check the SCSI device numbers from 0 to 999. You can

also set up your own AREXX macros, to perform repetitive tasks, and use either pull down menus of function keys to execute.

Beware, the Bugs!

If you decide to buy *Quarterback*, watch out for version 5.0.2. It has a nasty problem. If you use compress mode and back up your data, when you try to restore your data after a problem, you may find that *Quarterback* cannot recognise the file it created. This may leave you in a very sticky situation, where you cannot restore any of your backed data to the chosen partition. You should be able to track down a patch

from a BBS or possibly from your local computer store.

Ami-Back

Ami-Back is simple, logical to use and it comes with both Workbench 1.3 and 2.x versions. There is also a hard drive installation program which works fine. Using *Ami-Back* is very similar to *Quarterback*. The first thing you need is to set up your default configurations.

After running the program and picking whether you want to back up or restore, you are then asked to specify your backup/restore options. *Ami-Back* then proceeds to create a listing of the selected files for your chosen operation.

One big bonus for WB2.0 users is *Ami-Back*'s built-in help screens (not available in the 1.3 version). To find out information about any of the gadgets or options in *Ami-Back*, all you need to do is place the pointer over the desired gadget and press the help key. This will then bring up a help screen giving you a listing of information about the selected gadget. You can then read through the on-screen help at your leisure, or push the window to the back and recall it again at any time.

Another impressive feature of *Ami-Back* is that it has several backup modes. These are the standard complete and selective modes, plus two others. These two are called 911 recovery mode (attempts to recover deleted files) and image mode.

Ami-Back - Main backup screen

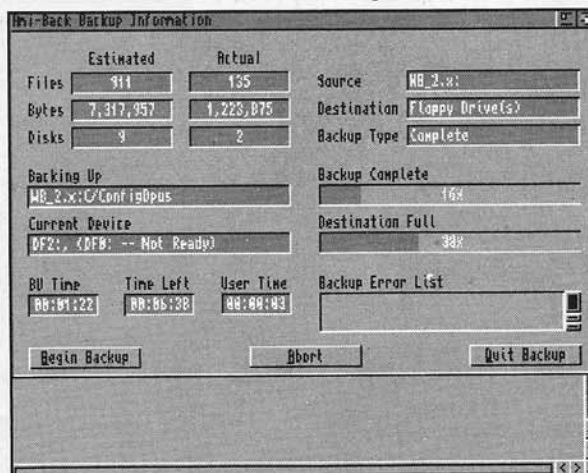


Image mode allows you to make backups of an entire partition or device - it will backup almost anything. For example if you have an MS-DOS partition on your hard drive, then *Ami-Back* will be able to back this up to Amiga disks. Using Image mode you can back up Amiga, Amax, Unix or MS-DOS data. There is one drawback using this mode, however, and that is that you must back up the entire partition using this mode, you cannot do a partial backup or restore.

Ami-Back also has a little utility called *Ami-Sched*. It allows you to automatically backup your hard drive at defined times to the minute. One thing of note here, after installing *Ami-Back* on your hard drive you may want to try out *Ami-Sched*. This program can be placed in the WBStartup under WB2.0 and also for it to work you need to load *Ami-Back* and select Program Configuration from the pull down menus. Once this is selected you will need to specify the "*Ami-Back* program path". Beware, as *Ami-Sched* will not run unless you specify this path, and don't forget to hit return before saving the changes.

If you want to automatically backup certain partitions without human interaction you will want to be backing up to a large device such as another hard drive or tape drive - unless you only want to do incremental backups. On the other hand, you also have the option to not automatically backup, but to bring up a message only, giving you the option of

backing up if desired. Say for example you want to perform a backup every Friday afternoon at 2.00 pm.

After configuring *Ami-Sched*, at the specified time a requester will appear reminding you that it is time to back up your hard drive, and asking you if you want to proceed.

Ami-Back also has an append tape option, like *Quarterback*, and AREXX support.

Conclusion

Comparing the two side by side, even though I am used to *Quarterback*, I started to realize that *Ami-Back* really did have more to offer. *Ami-Back* also

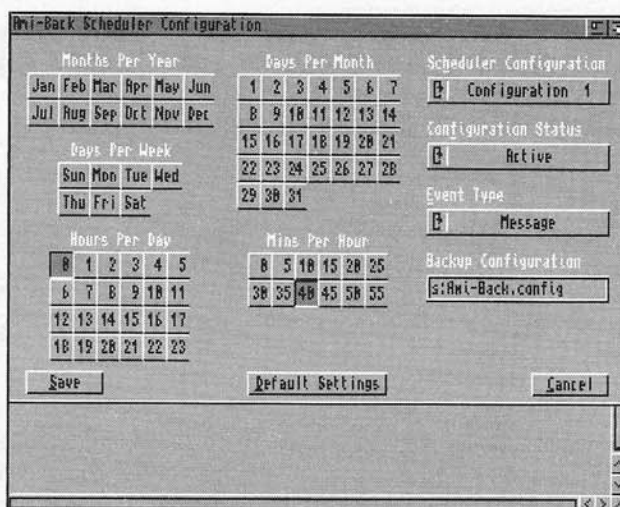
promises on the box that its compression mode works without slowing down the system if using an accelerator.

Backing up 7.2 Megabytes using *Quarterback* on nine disks took 7 minutes 50 seconds. The same process using *Ami-Back* took a total of 7 minutes 30 seconds, a small saving of time. Unfortunately I was unable to effectively test the two programs using compression mode because of some modifications currently happening to my accelerator.

As you may know, *Quarterback* has an additional package available called *Quarterback Tools*. Following in this tradition, the creators of *Ami-Back* are working on *Ami-Back Tools*. Of the two *Quarterback* seems slightly more refined, and has a better file tagging menu, while *Ami-Back* has all the frills.

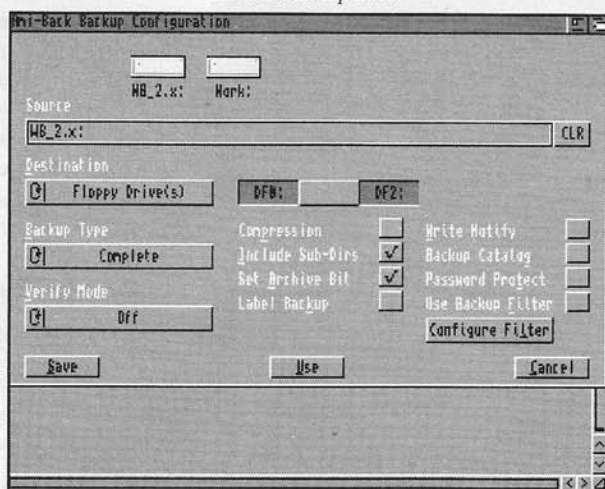
My personal choice, I prefer *Ami-Back*. The current recommended retail price on *Ami-Back* is \$???, while *Quarterback* goes for \$119.95. Please note that these are the official recommended retail prices, so you should be able to do better.

One final footnote, I also tried restoring some files that were backed up using *Quarterback V 5.0.2*, and tried to restore the files using 5.0.1 and found that it could not read the data. There is no way that I know to check which version is in the box when purchasing, except by booting it up.



Ami Scheduler Configuration

Ami-Back Options



ProTracker

Music Power to the People

You don't have to fork out big bucks to land yourself a state of the art sequencer. Daniel Rutter reviews ProTracker, the new king of the trackers.

A strong feature of the Amiga is its ability to produce decent sounding music without the addition of any expensive sound cards or external hardware. A number of music programs - *Sonix*, *Deluxe Music Construction Set* etc all have sold healthily as a result. But, as anyone with any experience in the Amiga Public Domain world can tell you, these old favourites are not the be-all and end-all of music on this machine. It is, in fact, possible to get Amiga music programs for less than \$10 with more power for most purposes than any commercial alternative, and with far more user support!

I speak of course of the *SoundTracker* clones. There are an army of these programs, which were originally cryptic little things built by programmers to write demo and game tunes. Over the years, they've matured into fully fledged and documented four track sequencers, yet have remained in the public domain; they're obviously the ideal choice for the budget conscious software buyer!

The biggest and best of the *Tracker* programs is *ProTracker*, which has with the arrival of Version 2.2A lengthened its lead over the next contender, the now slightly elderly *StarTrekker*. The version now present in the Prime Artifax library (and other fine PD libraries of course!) is the beta release of 2.2A (so don't ask me what the A's for, I just work here), but I've found it to be more

than acceptably bug free and enough of an improvement over 2.1A to warrant the upgrade.

So what, I hear you impatiently mutter, does the blooming thing do? Well, to understand the basic way all *Trackers* function, you have to understand the basic concept of the sequencer, as opposed to the score-based music program like *Sonix* or *DMCS*. Sequencers, a group of programs which includes virtually all professional music packages, deal with notes not by plotting them onto the familiar five-line stave, but by listing them as a sort of piano roll, with various cryptic forms of annotation to indicate dynamics and effects.

All the *Tracker* programs have four columns of letters and numbers, which aficionados can easily decode and amateurs can fumble through by using the manual. Notes can be recorded in real time from the computer or an external

MIDI keyboard, or edited individually, and special effects like vibrato, portamento and so forth can be inserted during the edit phase too. *Trackers* use sound samples for instruments, and since there are tens of thousands of samples out there (with the right hardware you can even make your own) you'll not be short of interesting noises.

Effects

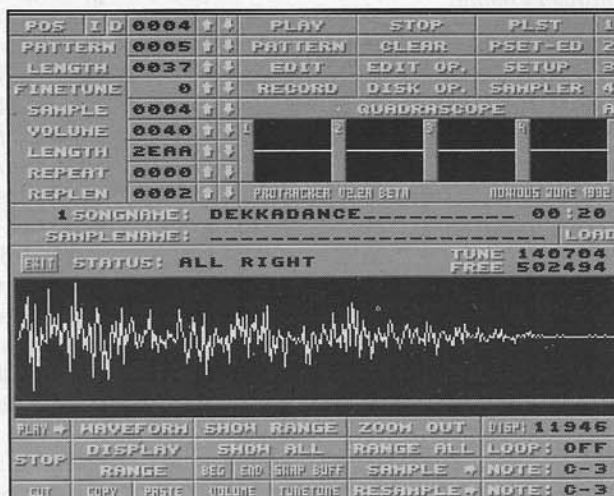
ProTracker supports all the standard *SoundTracker* effects, these being Arpeggio, Portamento, SampleOffset, VolumeSlide, TonePortamento, PositionJump, Vibrato, Set Volume, ToneP + VolSlide, PatternBreak, Vibra + VolSlide, Tremolo and Set Speed, all of which are fully documented of course, but it also includes a powerful set of new commands called by use of the E or Extended key - Filter On/Off, Fineslide Up/Down, Retrig Note, FineVol Up/Down, Glissando Control, Vibrato Control, NoteCut, Set Finetune, NoteDelay, Patternloop, PatternDelay, Tremolo Control and Invert Loop. To explain what all of these do would take more room than this article is allowed to occupy; suffice to say they're all useful and, of course, documented.

I keep harping on about documentation because previous *Trackers* have tended to have tiny, illiterate or, more often, no manuals; the authors assumed the user already knew how to drive a *Tracker*, and this alienated the ordinary user.

ProTracker has a printable manual, and even on-line help within the program! It's written in English, as opposed to some efforts I've seen ("Do not be the pressing until. Now do the forever herewith"), and it, like the rest of the package, is of commercial quality.

Sample processor

One of *ProTracker*'s most impressive features (i.e. the one you'll show off most to your mates) is its extensive



sample processor. Any sample in a song can be zoomed into or out of, reversed, mixed with another (this makes it simple to make complex rhythm tracks), chorded (to make it sound as if you've got a lot more sound channels) crossfaded (which allows you to make flawless looping samples), echoed, treble boosted or cut, and of course faded in or out.

On top of that, you can take samples which were recorded on the wrong frequency and hence sound too high or low, and resample them to fit the rest of your composition. All of this stuff can be reached with a couple of mouse clicks.

Want more features? How's about these:

Whole tracks or individual notes can be stepped up or down by semitones or octaves. You can also "quantize" your input, so that when editing notes, every time you enter a new note it steps the notelist forward by more than one increment - this makes it dead easy to lay down basslines with perfect accuracy. There's also a metronome, to help keep you on time when composing something without a thud-thud-thud bassline.

You can format disks, and rename or delete files from within *ProTracker* - but you don't really need to since it multitasks very well. *ProTracker* has an inbuilt preset list editor so users of

other *Trackers* can cast aside their outboard editors. There are two great big setup screens which allow you to set every conceivable preference, even including cosmetic details like the pretty rainbow bars which pop up when a note's played. On the same subject, *ProTracker* boasts four very cute oscilloscope type displays which show the waveforms being output on each channel!

If you're running a superfast machine, there's a "Slow Mode", which stops text editing and gadget repeats going berserk. You can also set DMA wait, which prevents turbo machines missing notes on playback. This is a slightly clumsy way of dealing with the problem - an automatic slowdown is promised in a later version, but since all of this stuff can be saved in your config you only have to do it once.

You can save executable modules in PT2.2A. These are modules which play themselves - give them an icon or type their name from the command line.

MIDI input

MIDI input, though not output, is supported. On a standard five octave keyboard, the top three octaves can be used to enter notes, while the bottom two can be used to emulate all the frequently used buttons on the screen, so

you don't have to keep swivelling around to fumble for the mouse. Mind you, you'll need a fair few sticky labels to remind you which one's which ...

There are still a few bugs, which are mainly the fault of the many other *Tracker* clones out there. Many of their authors had brilliant ideas about what they felt should be included in a *Tracker*, and so built in new and exciting features which when incorporated into a tune caused non-standard save files to be generated. Try to load some of the weirder ones of these into *ProTracker* and you'll be off on a magical mystery tour of your memory map, or informed that the song loaded takes up 1,462 megabytes, or just frozen solid. But on the vast majority of modules, and all recent ones, *ProTracker* functions perfectly.

ProTracker comes on a bootable disk with a quite impressive intro, the music from which can be loaded into the program to get you up and running - or of course you can invest in a few of the hundreds of disks full of modules (tunes with instruments attached) which PD houses all carry. *ProTracker* is fully Workbench 2 compatible, and can be installed without great drama on hard disk.

Do yourself a favour - check out *ProTracker* before you shell out big bucks for the commercial alternative. □

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Desktop Publishing

Andrew Farrell brings us up to date with the latest in desktop publishing software, techniques and design tips.

At last year's World of Commodore, I held three seminars on desktop publishing. Measuring by the attendance and level of note taking, there's a good number of Amiga users involved with this area. Information and courses specific to our machine are scant, however the software tools, fonts, clip art and compatability with other platforms is now excellent.

I've always maintained desktop publishing is one of the most tangible ways in which a computer can save money. Indeed, it has the potential to improve the entire production process whether you're knocking out a short newsletter or creating full colour advertising material.

Professional Page 4.0

Gold Disk are almost ready to ship another new version of *Professional Page*. Version 4.0 is fully compatible with Commodore's new AGA Chipset and includes a hot linked paint program for fast changes to graphics as part of the company's upgrade program for current users of *Professional Page 3.0*.

Graphics imported to a page may be view in 256 colours from a palette of 16.7 million. It's little wonder I find it hard to get excited about *Pagestream's* increas-

ingly feeble black and white display of bitmapped images.

Other new features include enhanced graphic handling with new graphics import filters; extra text handling functions; and user-definable display magnification. There's also a barrel of new genres and support for many new file formats.

Professional Page will run on any Amiga with at least 2 MB of Ram and a hard disk drive, is Workbench 1.3, 2.0 and 3.0 compatible, and will be available through Amiga dealers. For more information contact Desktop Utilities on (06) 239 6658.

Art Expression

Soft-Logik are on the path to success. I may not love *PageStream*, but a new structured drawing program just launched by them called *Art Expression* is truly a masterpiece. The interface is superior to *Professional Draw 3.0* and the ease with which you can fill one shape with another, including warping; follow text along a path; distort and stretch text and edit points is beyond anything we've seen before.

However, Soft-Logik have missed one vital feature. *Professional Draw* users waited ages for it. Gradient fills. Let me

clarify. You've been able to create gradient fills using blends for a long time. This is a more cumbersome alternative. It involves making two shapes of the same number of points and then blending between them. By making the fill colour of each shape different you end up with a smooth graduated area, depending on how many steps you specify.

A gradient fill on the other hand is much simpler. Under *Professional Draw 3.0* you simply make a box, choose fill type gradient, select a start and end colour, choose how the gradient should run and the software does the rest. You end up with one object, not dozens. It's far easier to fill complex shapes, and none of the complications of creating equal shapes to blend between.

The other feature missing is hot linking. *Professional Draw* is connected to *Professional Page* for instant exchange of clip art. SoftLogik promise to add this to *Art Expression* in the next release.

Outside of these two short comings, I can tell you *Art Expression* looks to be a brilliant program. It conforms with Amiga standards, is fast, well documented and compares very strongly to the competition. Look for a full review next month.

New Professional Page Genies

Don Cox from England has created an excellent range of new and improved Genies for *Professional Page*. The arrival of this collection is proof that end users would improve *Professional Page* in between Gold Disk updates. This collection is a must have!

MAKE BAR GRAPHS - These are debugged versions of the ones supplied by Gold Disk, with the added feature of allowing you to select any font.

STEP AND REPEAT DELUXE - This starts with a single box, which could contain text or an image, and generates a wide variety of patterns. You can set the X and/or Y scales along with rotation, so the boxes will change size and position across the page.

BORDERS FRAMES - This puts frames around boxes and at the same time sets a margin all round the box, so that bitmaps do not cover up the frame.

MARGINS ALL ROUND - To save you having to type the same number in four times when setting a uniform margin.

BORDERS REPEATS - This is for putting decorative borders around boxes. The borders are made from design units (boxes containing clips or bitmaps), which must be visible on the screen so that they can be clicked on.

How to Create Reverse Text

Of all the questions I get asked about desktop publishing, this would have to be the most common. Reverse headings can work well. Reverse body copy is a no no. It's too hard to read, and whilst it might attract attention, the comprehension of those who read it is very poor. With that in mind, here's how to do it on those odd occasions it's deemed useful. (The following example is for *Professional Page*, but may be adapted to other programs.)

1. Create a text box and place inside it the text you wish to reverse.

2. Center the text, and move it in from

the edges of the box by giving the box a margin of 2mm or more.

3. Turn on the box frame - double-click on the box and choose the appropriate button.

4. Select fill type solid and fill colour black (or whatever colour you wish the box to be.)

5. Now select the text and make it white (or whatever colour you wish it to be).

6. Finally, make sure you have wireframe mode off to see the results. Now you should see a box with reversed out text.

BORDERS SIMPLE SHAPES These draw various borders around boxes, using data built into the genie. Unlike Borders Repeats, you do not have to provide any boxes, except the one that needs a border.

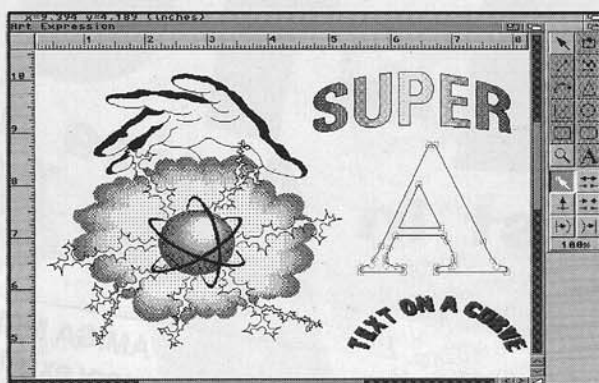
MAKE PIE CHART - This generates a plain 2D pie chart from a set of percentages and labels which you enter.

BOOKLET - If you wish to lay out an A5 booklet consisting of a number of sheets of A4 paper stapled in the middle, this genie will arrange the pages for you. You design the work on a series of landscape format A4 pages, each showing a pair of facing pages for the final booklet.

LANDSCAPE PAGE - This converts an existing page from portrait to landscape format or vice versa. It sets the Postscript output parameters accordingly. Useful for working on double-page spreads.

COPY BOX TO PAGES LINKED and **STEP AND REPEAT LINKED** - These are both just the same as the standard ones but the resulting boxes are in a linked text chain.

REPLACE BOXES ON PAGES - This is useful if you have done "Copy Box to Pages" and then you want to make a change throughout. For instance, you have put a neat little box at the top of every page giving the date of a magazine, and then you realize you have the wrong month. Or you want to change



Art Expression

the type size.

IMPORT BITMAP 1 to 1 - If you own *Art Department Professional*, you can set the exact size of an image by using the "Define Pixel Aspect Ratio" command. PPage will pick up this info on loading. Otherwise, it normally scales the image to fit the box, which is not always what you want.

STYLE TAGS AUTOCREATE - This goes right through a document and creates a style tag for each different text style it finds.

STYLE TAGS CREATE SINGLE - Much the same but does only one and gives you the chance to set the name at the time. It just saves your having to type in all the specs by hand in the usual requester.

FIT TEXT TO BOXES - This will adjust the size of the text in an article until it is the largest size that will fit into the available box or chain of boxes.

TEXT TO GRID - Fits the bounding boxes of the text (not the baselines) to the current grid.

BOXES TO GRID - GRID FROM BOX - Obvious, really.

BOXES NAME ALL - This invents a not very imaginative name for every box in the document (except those already named).

BOXES FRONT TO BACK - This genie has a rather messy interface, but it works. It gives you a list of the boxes on the page, and you click on the names in the order you want them, starting at the front. Useful when you have a jumble of overlapping boxes.

I've compiled Don's Genies along with some other useful programs onto one disk. The disk is called ProPage More Extras, and is available for \$5 through Prime Artifex on (02) 879 7455.

If you have any Desktop Publishing questions or suggestions on what you would like to see covered, please write in to the magazine. Until next month, happy publishing! □

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The 38 Special comes out of the box with enough horsepower to compete with the fastest 68030's. This less modular approach requires that you purchase the 50MHz 68030, 50MHz 6882 and 4 or 8MB's of optimised 32-bit RAM, all installed at the factory. (Dubbed the 'Flying Wedge' a 38 Special installed into an Amiga 500 out-benchmarks an Amiga 3000 by 40%!) 

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Watch this space!



DERRINGERS

These are working very well with no compatibility probs that I can find as yet, AND the good news is now there is a 40 & 50 MHz versions at low cost (\$1199 - 1399)

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AMOS Column

A Little History

How did AMOS originate? Plus latest AMOS Pro information; What products work with what and Sprites - by Wayne Johnson

As this is the tenth anniversary of the *Australian Commodore and Amiga Review* and an issue to reflect on the past, I thought it might interest readers to find out where AMOS originated from. You may not think that there could be a small history to a language, but there is. AMOS started its life on the Atari ST!

Francois Lionet, a French veterinarian, worked with animals by day, and in his spare time he toyed around with a bit of programming on his Atari ST. He found the BASICs around at the time to be too limiting. He wanted a BASIC that would let him create anything he wanted with ease.

So Francois set out to do so, and in 1989, the first version of STOS was released through Database Software in the UK. Between three months and 12 months later, the rest of the STOS products were released; STOS Maestro (sampler cartridge and music package similar to *Protracker*), STOS Sprites 600 (like on the AMOS Extras disk, for non-artists), and the STOS Compiler (like the AMOS compiler).

It was around this time that Francois first heard of the Amiga's existence and after getting his hands on one, he immediately began experimenting with hardware registers and soon ported STOS over to the Amiga. He added support for the blitter and copper, and added in all the functions for the custom chips.

Again, this was marketed by Database Software and the original Beta copy v1.0 was released to Pactronics here in Australia, very buggy and looking very primitive. V1.1 was marketed in mid

1990 and the first copies of AMOS entered the Australian market. Two months later, v1.2 came as an updater to replace v1.1 due to excessive bug reports and Database Software became Europress.

Europress UK set up the British AMOS Club to support the product and in the month that followed, the Australian AMOS Users Club was set up to do the same in Australia. Both clubs linked PD libraries to help users spread their programs overseas.

After a year and a half of promises and waiting, the AMOS Compiler was released. Six months later, AMOS 3D arrived. Extensions for the language began to pop up everywhere like the TOME extension, DOS/PRINTER DUMP extension, C-TEXT extension, Shuffle Extension, OpalVision extension, plus heaps of others.

Now we have AMOS Pro which will continue to keep up with trends on the

computer scene. We will see full AGA support, sound card support plus many other little secrets that only developers like Francois know about, and leak out from time to time.

AMOS/AMAL programming and the Commodore 128

Previous or current owners of the Commodore 128 who have programmed in Commodore Basic 7.0, might have noticed similar commands to both languages. Sprites were invoked in the same way with:

Sprite 1,160,100,1

The process of moving them was similar to the AMAL command:

Move Xpixels,Ypixels,Steps

On the Commodore 128, the command was:

MoveSpr

SpriteNo,Xpixels,Ypixels,Steps

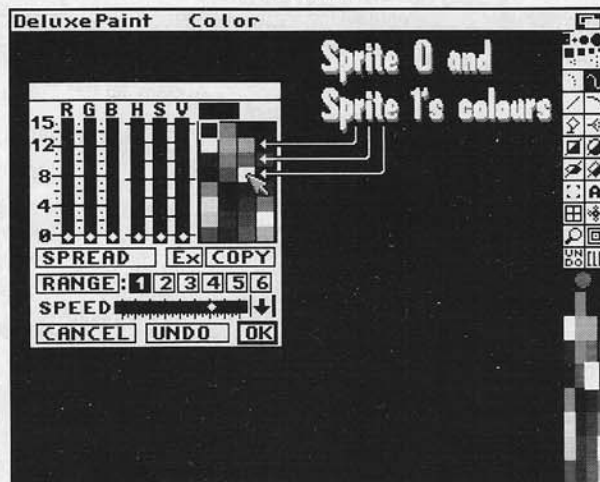
There are other commands similar such as Colour, Ink (although many computers used these), the drawing commands, the sound commands, and so on.

It makes you wonder if there was any connection!

News

The update to AMOS Pro Version 1.1 is now available from the Australian AMOS Club.

Colours



- The AMOS Pro compiler is due out half way through this month. Existing compiler owners should be able to purchase an updater disk from the Club. The cost is not yet known.

- Once the compiler is released, look out for info on v1.2 of AMOS Pro here in this column. A new set of commands are planned, one of the major ones being INTUITION ON/OFF. As the name suggests, this will flip into Intuition mode.

There will be no fake screen opened in the background to keep AMOS Pro active. Previous attempts at Intuition programming meant using DOS calls and bringing Workbench to the front, while a custom screen remained in the background. 100% Intuition support is a definite for v1.2, and will allow you to create Workbench applications that are already available in other BASICS like BLITZ. This will be happening after the compiler is released.

- Contrary to what I said a few months ago, there is going to be one last update for AMOS The Creator. Francois Lionet (author of AMOS & AMOS Pro) faxed recently letting me know that he plans to release version 1.35. There are not going to be any dramatic changes to the current 1.34, except that the code will be adapted to be compatible with the new AGA machines.

Bug Report

Yes there's bugs, quite a few in fact. Although AMOS Pro owners have picked up a few, Francois informs me that there were more than they first realised. He also assures me that there were no major bugs, all minor problems. A few were as follows:

- AMOS Pro v1.0 will not work on an AGA machine (Amiga 4000/1200), unless the Setpatch is disabled.

- The Editor did not recognise SET EQUATE as a command.

- Bringing the rear window to the front with multiple windows open will seemingly crash half the editor. Simply go to the AMOS menu and select your program to edit. All will be restored.

- PORT command problems.

All these and others, have now been fixed in v1.1.

New AMOS PD

One of the best disks I have received lately is *Dual* by Richard Hamilton. This is a 3D game where you can explore a virtual world, and interact with six different vehicles. The best feature of this game is the ability to link two Amigas together and play in combat. Well done, Richard.

Compatibility

This is the list of what AMOS products are compatible with others:

AMOS Pro - AMOS 1.34 code, Easy AMOS code. No extensions.

AMOS 1.34 - Some AMOS Pro code, Easy AMOS code, AMOS Compiler, AMOS 3D + all other extensions.

EASY AMOS - Some AMOS and AMOS Pro code. No extensions.

AMOS Compiler - AMOS 1.34 only till mid March.

AMOS 3D - AMOS 1.34 only till mid March.

Designing Sprites

This is still a difficult area on the Amiga. People have many problems understanding the differences between Sprites and BOBs, what colours to use, and how to set them up.

You will need to load your favourite paint program (the following is for

Dpaint owners, but others can easily follow along), and open a 32 colour screen.

Now then, let's take note of some things; the Mouse pointer is a sprite, it can never leave any pixels behind or be pasted to the screen. This is because it is independent of the screen. If you pick up a part of a picture as a brush, what you have is a BOB. The Amiga is using an area of the screen and defining it as a BOB (Blitter OBject) so that it can be moved around the screen and pasted. The term, Blitter OBject or BOB simply means a section of the screen that is shifted or moved by the Blitter chip, NOT the processor.

Some quick rules about Sprites before we move on, Sprites can only have three colours (unless you combine two sprites together), they have to be less than 16 pixels wide and you can only display eight at a time; and these are:

Colours 16,17,18 and 19 for Sprites 0 and 1

Colours 20,21,22 and 23 for Sprites 2 and 3

Colours 24,25,26 and 27 for Sprites 4 and 5

Colours 28,29,30 and 31 for Sprites 6 and 7

As a test, go to the palette requester in your paint program and fiddle with colours 17,18 and 19. Do you notice your mouse pointer changing colours? This is because we are affecting Sprite 0 and 1's. We can easily assume that the Workbench pointer is either 0 or 1. We know by fact that is Sprite 0. Right then, let's create an object for Sprite 0 and we will load it into AMOS to check if we have a true Sprite.

Make a small object using colours 17,18 and 19. Make sure it's within 16 pixels across. Go to SCREEN MODE in the PROJECT MENU. Change the

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screen to 4 colours and save the screen as a temporary file in the RAM DISK or somewhere appropriate. Load AMOS and open the SPRITE_GRABBER.amos program. Run it and select the file containing your Sprite. Select the SCISSORS icon and enclose the area around the Sprite, but make sure you don't create an area larger than 16 pixels wide! Save your sprite file and exit to the editor. Type the following program; if 8 sprites appear on the screen in pairs of different colours, then you have done everything right:

```
'Sprite checker
Screen Open 0,320,200,16,Lowres
Curs Off : Flash Off
Cls 0 : Hide
Load Fsel$("")
Repeat
    Sprite I,200+(I*20),150,1
    Inc I
Until I>7
Do
    If Mouse Key=1 Then Edit
Loop
```

If you only got four sprites or less on the screen then check your sizes by loading the sprite file into the SPRITE_EDITOR.AMOS and go back over the previous steps to check that you've done everything correctly.

The same process can be performed for BOBs except that they have no colour or size restrictions. BOBs are displayed in the same colours as the screen and in the same resolution. All colours can be used but it might be worth noting that if you intend to use Sprites in your program, design the colours for that first. If you hog all the colours for your BOBs and screens, and later realise that you want sprites, you will have to make major changes to your palette because Sprites must use the colour registers 16 to 31 ONLY. BOBs can share these registers but Sprites cannot share other parts of the palette range. □



If you get results
Similar to this,
then you have Eight
true Sprites.

You Can CanDo

A Word Scramble Game

by Greg Abernethy

This month's tutorial takes us through an educational program - a Word Scramble game. A word list is loaded into a document, a word is selected at random from the list, the word is scrambled and then displayed in a field in its scrambled form.

Three choices are displayed and the user must click on one. If the selection is correct a score is incremented and a message displayed. If the selection is incorrect the correct answer is shown. The word list can be created using a text editor such as the Text Editor designed in an earlier tutorial. This is useful for parents who want to create word lists for children having problems with spelling.

CanDoing the Game

The application will consist of a window on the Workbench, that has a field for displaying the scrambled word, three buttons for displaying and checking the word selected by the user, a button to display a requester for loading a word list, a field for displaying the number of words answered correctly and a field for displaying the number of words attempted. To exit the program the user can click on the window close gadget.

CARD SPECIFICATIONS

CARD NAME "Game1"
AFTERSTARTUP SCRIPT
SetText "Message",
"Load a WORD LIST to begin the GAME"

Explanation: When the deck loads, I set the "Message" field to the above message as a prompt for the user.

I've noticed with some software that when the program loads there is no information to assist the user on how to begin using the program.

The specifications for the window are:

WINDOW NAME "Word Scramble"
WINDOW SPECIFICATIONS
X POSITION = 0 : Y POSITION = 50
WIDTH = 640 : HEIGHT = 120
NUMBER OF COLOURS = 4

WINDOW DRAG BAR : WINDOW FRONT/
BACK GADGET : WINDOW CLOSE GADGET

WINDOW OPTIONS

THE WINDOW HAS VISIBLE BORDERS TRY
TO OPEN WINDOW ON WORKBENCH

MESSAGE FIELD SPECIFICATIONS

Field Name = "Message"
Horizontal = 8 Vertical = 19
Width = 624
Border = DOUBLEBEVEL
FieldType = "Text 80 Characters"
Centre Justification
NO Script

SCRAMBLE FIELD SPECIFICATIONS

Field Name = "Scramble"
Horizontal = 192 Vertical = 40
Width = 256
Border = DOUBLEBEVEL
FieldType = "Text"
Centre Justification
NO Script

CORRECT FIELD SPECIFICATIONS

Field Name = "Correct"
Horizontal = 410 Vertical = 93
Width = 200
Border = DOUBLEBEVEL
FieldType = "Text"
Centre Justification
NO Script

ATTEMPTS FIELD SPECIFICATIONS

Field Name = "Attempts"
Horizontal = 28 Vertical = 92
Width = 200
Border = DOUBLEBEVEL
FieldType = "Text"
Centre Justification
NO Script

LOAD WORD LIST BUTTON SPECIFICATIONS

Button Name = "Load"
Horizontal = 250 Vertical = 91
Border = SHADOW
Button Type = "Text"
Text = "Load Word List"

RELEASE Script

```
Let File = AskForFileName
(TheCurrentDirectory,"Select WORD LIST to
LOAD...",170,55)
If File
Of(File) <> ""
```

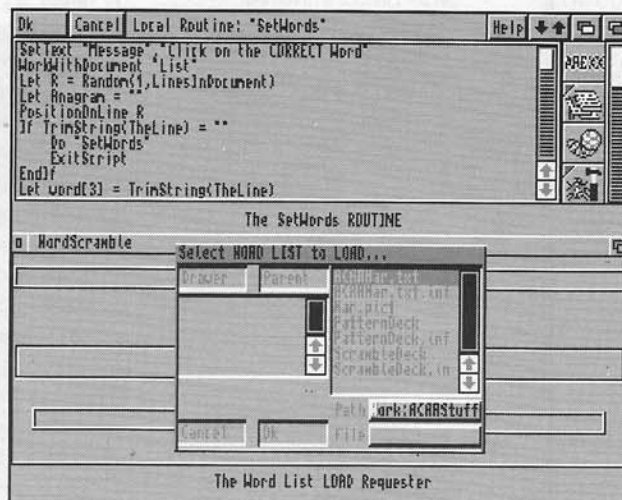
Make

```
Document "List" Work
WithDocument "List"
LoadDocument File,"List"
Do "SetUp"
EndIf
```

Explanation: The File Requester is used to have the user select the word list to load. If the user has selected a file, it is loaded into the document and then the SetUp routine is performed (see ROUTINES below).

WORD ONE BUTTON SPECIFICATIONS

Button Name = "Word1"
Horizontal = 10 Vertical = 60




```

Border = DOUBLEBEVEL
Button Type = "Area"
RELEASE Script
Let Pick = 1
Do "Check"

```

Explanation: The user has selected the first word. We then pass the selection to the Check routine (see ROUTINES below).

```

WORD TWO BUTTON
SPECIFICATIONS
Button Name = "Word2"
Horizontal = 220 Vertical = 60
Border = DOUBLEBEVEL
Button Type = "Area"
RELEASE Script
Let Pick = 2
Do "Check"

```

Explanation: The user has selected the second word. We then pass the selection to the Check routine (see ROUTINES below).

```

WORD THREE BUTTON SPECIFICATIONS
Button Name = "Word3"
Horizontal = 430 Vertical = 60
Border = DOUBLEBEVEL
Button Type = "Area"
RELEASE Script
Let Pick = 3
Do "Check"

```

Explanation: The user has selected the third word. We then pass the selection to the Check routine (see ROUTINES below).

ROUTINES

"SetUp" ROUTINE

```

Let Attempts = 0
Let Correct = 0
Do "ShowScore"
Do "SetWords"

```

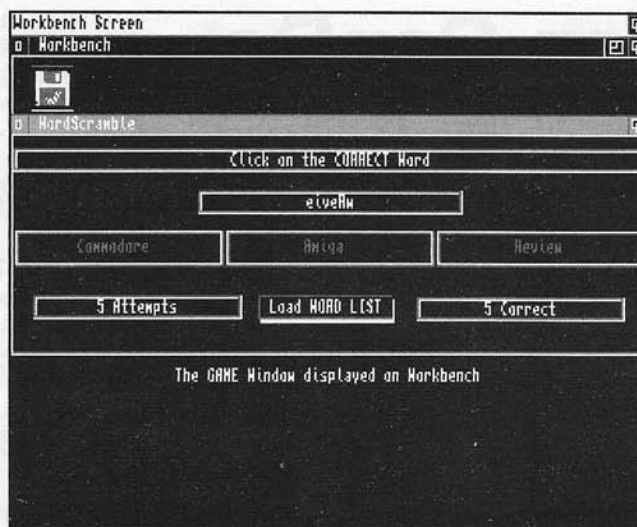
Explanation: This routine sets the variables Attempts and Correct to zero and then performs the ShowScore and SetWords routines.

"SetWords" ROUTINE

```

SetText "Message", "Click on the CORRECT Word"
WorkWithDocument "List"
Let R = Random(1, LinesInDocument)
Let Anagram = ""
PositionOnLine R
If TrimString(TheLine) = ""
    Do "SetWords"
ExitScript
EndIf
Let word[3] = TrimString(TheLine)

```



```

Dispose Temp
If R > 2
    PositionOnLine R - 2
    Let word[1] = TrimString(TheLine)
    PositionOnLine R - 1
    Let word[2] = TrimString(TheLine)
Else
    PositionOnLine R + 1
    Let word[1] = TrimString(TheLine)
    PositionOnLine R + 2
    Let word[2] = TrimString(TheLine)
EndIf
Let n = NumberOfChars(word[3])
Let x = 0
Loop
    Let x = x + 1
    Let Temp[x] = GetChars(word[3], x, 1)
Until x = n
Let x = 0
Loop
    Let x = x + 1
    Let s = Random(1, NumberOfArrayEntries(Temp))
    Let Anagram = Anagram || Temp[s]
    DeleteArrayEntry Temp, s
Until x = n
Dispose Temp
SetText "Scramble", Anagram
Let x = 0
Loop
    Let x = x + 1
    Let Temp[x] = x
Until x = 3
Let x = 0
Loop
    Let x = x + 1
    Let s = Random(1, NumberOfArrayEntries(Temp))
    Let New[x] = word[Temp[s]]
    DeleteArrayEntry Temp, s

```

```

Until x = 3
SetDrawMode JAM2
SetPen 2, 0
PrintText
CenterString(New[1], 24), 12, 62
PrintText
CenterString(New[2], 24), 222, 62
PrintText
CenterString(New[3], 24), 432, 62

```

Explanation: Firstly, a message prompt is displayed in the "Message" field to signal to the user that everything is ready. Next, a word in the word list is selected by getting a random number between one and the number of lines in the word list. The variable Anagram, which

will contain the scrambled word, is set to a null string to avoid any problems.

Next, the cursor in the document is positioned on the randomly selected line. If the line is a null string, the "SetWords" script is redone, until such times as a string is found. The selected word from the document is placed into the word[3] variable, so that we can compare it with the user's selected word. The variable Temp is then disposed.

Now we need to get two words to use as choices for the user. If the selected line is less than the third line in the document, we get the two words after the selected word. If the selected line is greater than the second line in the document we get the two words before the selected word. In this way we can never try to select a word outside the bounds of the lines in the document. If this happens CanDo will select the same word twice, which doesn't look very professional.

Next, the characters of the word are placed into the Temp variable. We then do a loop to select each character at random and place them into the Anagram variable. A number is selected at random between one and the number of array entries of the Temp variable. The array entry is then deleted, so that no duplication of letters can occur.

Finally, the three words, the correct word and two choices, are placed into a temporary variable and then selected at

random. In this way we can avoid having the correct word appear in the same location each time. The words are then printed on the screen.

"ShowScore" ROUTINE

SetText "Attempts", Attempts||"Attempts"

SetText "Correct", Correct||"Correct"

Explanation: This routine is used to display the current number of words attempted and the number of words selected correctly. I did not include a field to display the total number of incorrect answers as I was attempting to keep the appearance of the screen symmetrical. An extra field would have made the window look uneven. This could be added quite easily if desired. Simply create another field called "Wrong" and display the result of the subtraction of the Correct variable from the Attempts variable in the field.

"Check" ROUTINE

Let Attempts = Attempts + 1

If New[Pick] = word[3]

Let Correct = Correct + 1

nop ; put a correct sound in here

Do "ShowScore"

Do "SetWords"

Else

SetText "Message", "That's Incorrect."

The CORRECT answer is||word[3]

nop ; put an incorrect sound in here

Delay 0,2,0

SetText "Message", "Click on the

CORRECT Word"

Do "ShowScore"

Do "SetWords"

EndIf

Explanation: The Check routine determines whether the user has selected the correct word or not. Firstly, the Attempts variable is incremented by one, and then a comparison is made of the selected word and the correct word. If there is a match the Correct variable is incremented by one, and then the ShowScore and SetWords routines are performed. (See below).

If the selected word does not match the correct word, a message is displayed

in the "Message" field, showing the correct word, and a delay is set to enable the user to view the correct word. This delay could be extended for younger children and a sound associated with the correct or incorrect results played to add an audio prompt to the result.

The game is fairly straightforward, but demonstrates how useful educational software can be designed quickly using CanDo. The game can be expanded to a fair degree, with sound effects and graphics.

Coming Soon!

Next month we will be designing another educational game. This one involves following a pattern generated by the computer, in nine squares onscreen. The pattern becomes progressively longer and harder to follow. It teaches hand-eye coordination and memory skills.

See you next month. □



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The Sirius Boys

Shane Sodeman * takes us back stage to meet two of Australia's talented Amiga developers.

Tucked away in the outskirts of Adelaide lies the headquarters of a new Australian company developing exclusively for Amiga computers. The directors are Andrew Wilson and Jonathan Potter and the company is Sirius Cybernetics.

Their contribution to Amiga development over the years has been substantial and includes some of Australia's best known products, such as the Phoenix A1000 Mother Board and *Directory Opus*.

Andrew is vice president of the Adelaide Amiga user group where both he and Jonathan have assisted many users with their experience in computing. In addition to numerous other projects, the Sirius boys maintain the user group's BBS and maintain constant communication with developers world wide. Their most famous haunt is 'Joe's Pizza Bar', where gourmets and quick-witted computer heads blab until the wee hours.

Their first product (a ROM switcher with electronic mouse switching) requires a certain tongue twisting ability to pronounce and is titled the "Pick Which Kick Quick Switch"! Other products currently in the works include an A500 8 Meg board and an affordable 9600 baud modem.

The Phoenix Board

Andrew's and Jonathan's first joint project was to address the limitations that users were reporting with their A1000s. It was decided that the only solution was to build a complete replacement motherboard. Andrew had the knowledge but the pair required funds for research and development, so they put their heads together and drafted

a letter of proposal for depositors. It was soon distributed through BBSs worldwide and mailed out to relevant sources. The letter must have been convincing because six months later there were 550 deposits of \$100 in the bank!

The majority of the funds came from Australia and New Zealand but there was a small proportion of European and American investors. The Phoenix board allows:

- * 2 Meg CHIP RAM
- * 2000 Video slot
- * SCSI interface
- * Built in, 4 position ROM switcher
- * Zorro slot
- * 8 Meg internal RAM
- * Maths co-processor

A meeting was held, a location found and Phoenix Microtechnologies begun in September 1989. Andrew struck his first major hurdle with the first prototype on two different IBM CAD layout programs which promised to handle boards 36 x 36 inches but in truth barely managed 13 x 12. The second problem came from the program's inability to address extra memory and its limitations were quickly reached.

Finally a suitable CAD program became available but the marketing win-

dow was beginning to close and A2000 prices were dropping rapidly. Added to this were shortages of chips, production and company problems which meant that the boards were not produced in sufficient quantity to meet demand. On a positive note though, there are many satisfied A1000 owners that would otherwise have been severely limited in their productivity. The boards are still being sold and manufactured and today Phoenix is still the only third party developer to manufacture a complete Commodore board.

Andrew Wilson

Andrew began his affair with hardware hacking before the age of Commodore in 1978, building a Dick Smith 2650 from which he upgraded to S100 Buss computers, then onwards to Commodore PETS, VIC 20s, 64s and today the A3000s. From day one he studied, repaired and built custom parts and peripherals for these machines.

In addition to the Phoenix Motherboard, Andrew designed A500 subsystems which allowed any size ST506 hard drive and an 8 Meg RAM expansion. The product was well received but only



* Editor of the Australian Amiga Disk Magazine,

a few dozen were manufactured.

He also developed NEC AP3 memory boards for a computer manufacturer called Toldale who sold more than half a million dollars' worth in just six months. Alas the company directors had a falling out and the company was sold but the boards remain a credit to his name.

Jonathan Potter

Jonathan began on an Apple II in 1981, using Basic and soon upgraded to the faithful VIC 20. In 1984 he purchased a C64 and was soon programming educational games for his deputy principal. The next logical step was an upgrade to an A1000 where he once again programmed in Basic. In 1985 Jonathan's first C program was released titled POP Info (Fish 172) with many following such as JPDireUtil (a rudimentary directory utility), Full View, and Zero Virus 3.

His contributions to the Public Domain have been substantial and Jonathan has programmed so many, that he has long ago lost count! One thing certain is that it helped Jonathan get good grounding as a programmer and made him widely recognised in the Amiga community. Many of the programs are considered to be of commercial quality but Jonathan chose to distribute them freely.

Indeed, even today he continues the tradition by including free software with version 3.42 of *Opus* and includes everything from Tic Tac Toe to 'OSK' an on screen keyboard for those who forget to take their keyboard with them on holiday!

Directory OPUS

Jonathan's PD experience helped develop his programming skills, and PD releases such as JPDireUtil were the very early beginnings of a vastly improved *Directory Opus*. It began in 1990 with simple packaging with only his user group and Phoenix buying copies.

Version 2 saw improvements both in the program and the packaging and more shops began to stock it on their shelves. Version three was the one that really

took off though and it received very good exposure at the 1991 World of Commodore Show. Tomorrow the World!

In June 1991 Jonathan received a surprise phone call from the president of Inovatronics USA. He called after viewing version two of *Directory Opus* and offered to market it world wide (except Australia). This was about the time that version three was released, so Jonathan sent it to them and their comments ..."Brilliant"! Inovatronics suggested a few additions which were soon implemented and he included CanDo support and an animation player.

Today *Opus* graces the back covers of leading international magazines such as *Amiga World* and *Amiga Format*. Reviews in these magazines have been very favourable and in Australia you'll rarely hear any criticisms. Sales in Australia are around 1000 but overseas more than 13,000 copies have been sold! A German version has just been produced by Inovatronics which should add to these figures considerably.

Success hasn't come easy though and Jonathan has spent in excess of 9,000 hours programming *Directory Opus*. It's a logical step to continue *Directory Opus* onto upgraded versions and other PC platforms. Jonathan plans an IBM/Windows version to begin soon which should open up a massive market for its author. After all, the Amiga has been using a similar (some say better) interface since 1984!

The Future

I asked the Sirius boys what their thoughts were on the future of the Amiga: "If all the rumours are true about the new chip set, and the graphics and sound are improved, then it will once again be competitive and do very well - otherwise it will slowly die." The basic Sirius philosophy is that, "ALL things are possible". Commodore, the ball's in your court ...

Contact Sirius Cybernetics on:
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The C64 Column

by Owen James

More GEOS Utilities

As the name might suggest, *Collette Utilities* is a compilation of GEOS applications and accessories from popular GEOS programmer Jim Collette. Most of the programs have been available separately, but CMD have now put them together on one compilation disk. Here's a quick run down on what's included.

Font Editor v2.5

Font Editor is an application for creating and editing not only standard GEOS fonts, but GEOS Mega fonts, Perfect Print and Border fonts as well.

Once you select the default character width and baseline, you can start designing using the mouse. With each character, you can apply effects such as Reverse, Mirror on the X and Y planes and Scale. Scale is one of the most useful options, allowing you to scale an entire font either up or down, making it easy to create new point sizes. As you might expect, scaling an entire font by any significant size takes a fair amount of time, so some patience is needed. At

any time you may preview your font to either screen or printer in a range of styles, including bold, italic, outline and reverse.

Font Changer

If you've ever needed to modify a font or font size in a long *geoWrite* document, you'll appreciate this utility. Quite simply, it allows you to globally modify a font and/or size throughout an entire document. Small, but very useful.

geoWizard

Similar to MultiFinder on the Apple Macintosh, *geoWizard* is a task switching utility. Basically, this means that you can 'freeze' any GEOS application and run another while still retaining the first. It's not quite true multi-tasking, but this is the next best thing. You could jump between *geoWrite*, *geoPaint* and *geoPublish* quickly without having to ever close any application down.

Along with task-switching, *geoWizard* also has a screen dump util-

ity that will not only dump to your printer, but optionally a *geoPaint* file as well. *GeoWizard* is fast and effective, but you must have an REU with a 64K bank free in order to use it. This is probably one of the most useful GEOS utilities to date.

Mini Desk

A small Desktop-like accessory that can be launched from within any application. Useful for copying, deleting or renaming a file without having to leave any running application. Supports multiple file selection and up to three drives. Another very useful utility for any GEOS user.

Select Printer

This Desk Accessory was actually released by Jim Collette to the Public Domain, but has been included in this compilation because it's just so darn useful. If any of you have ever gone to print a document from *geoWrite* and found that you don't have the correct printer driver selected then you'll certainly appreciate this utility. You can select a new printer driver from within any application that supports Desk Accessories.

DOS Wedge

Although GEOS is designed to be a replacement to the standard way of controlling your C64's disk operations, many will find this Desk Accessory very useful. Quite simply, it lets you send regular Commodore DOS commands to any one of your attached disk drives.

Auto Album Add

Here's one that I wish was included on the GEOS System disks. With one

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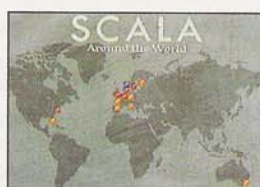
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SCALA
Why make it harder?

also tracked down a copy of the terminal program that was specially written for it.

"The First Nice Modem' was designed and manufactured by a company called 'The Nice Computer Company of Australia' (whether they still exist or not I do not know). Their address is (was?) GPO Box S1517, Perth 6001, WA. The manual was printed in 1985 so there is a strong doubt that they still exist. Here is some information from the manual that may help.

"On the front panel (left to right): Mode Switch - used for selecting the standard and baud rate, Toggle switch for selecting 1200/75 baud (up position) or 75/1200 (down position). The latter is used for things such as VideoTex or ViaTel. Leave the switch up to use 300 baud (answer/originate)

"The first LED (red) is marked PWR and indicates when it is attached and receiving power. The second (RXD) is

also red and will flash at varying rates when the modem is receiving data from the phone line. Next is an orange LED (CD, or Carrier Detect), and lights when a valid carrier signal is being received. The light will be lit when there is no data being sent. The TXD (red) LED indicates if you're sending data. If you're trying to send info, and the LED doesn't light, then you know that something is wrong. The last LED (a green one) is marked ON LINE and indicates whether or not the modem is connected to the phone line. The switch at the end selects whether the telephone line is connected to the telephone (PHONE position) or modem (MODEM position) or in the top (AUTO) position. In the AUTO position, the phone automatically answers as a modem or telephone depending on the incoming call.

"On the mode switch, the left hand side deals with Bell, the other side is for CCITT. 300 ORG - 300 baud ORiGinate



(full duplex), 300 ANS - 300 baud ANSWer (full duplex), 1200 - 1200 baud half duplex (with 75 back channel. This is used for VideoTex), 1200 EQU - 1200 baud with EQUalisation (same as above but built in error checking), 600 - 600 baud half duplex (with 75 back channel).

"The leads at the rear are quite straightforward. The weird black one goes to the power supply. The power supply needed is a 12 volt plug pack, which goes directly into a 240 volt socket.

"That's all the information Mr.

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Cadwell should need to get going. If he needs any more help, he can write to me at PO Box 362, Hornsby NSW 2077. If Mr. Cadwell cannot find a copy of the program or cannot use another terminal program to get it working, do you think a 'pirated' copy would hurt that much if he promised not to further distribute copies? I know that piracy is a crime, but if the company isn't around any more it seems a shame Mr Cadwell not being able to experience the joys of running up a big phone bill, especially dialing interstate on 300 or 1200 baud and attempting to download.

"On an entirely different subject, Kevin Power of Kirra Qld, was asking about machine code. An excellent book on the subject is *Top Down Assembly Language Programming for your Vic 20 and Commodore 64* by Ken Skier. This book is aimed at beginners or people with little knowledge of the subject, and is published by McGraw Hill.

"I'm pretty sure I have a copy of Big

Mouth (January Column) on tape somewhere. You type in something like SAY "HELLO" and it speaks HELLO.

"I reckon it must be about equal, the C64 and Amiga readers, with a lot of them owning both machines. Well it was probably about half/half until in the wise words of the editor with his *Although the C64 is close to my heart, ... we will be reducing our C64 content down to a one page column* showed in August's editorial. I'm not all that sore about it as the coverage is virtually the same as it was a couple of months before and me owning both machines does soften the impact a lot."

OJ: First of all, thanks for the information on "The First Nice Modem". It seems there are still quite a few of these modems being used by C64 users. With regard to copying the software, this has been the subject of much debate recently. As far as I am aware, the software would still be protected under copyright laws, although if the software



is no longer available through retail outlets and the company is no longer in existence it would seem that no one would lose if a copy was made.

Well, it looks like my space is up. As always, I'd love to hear your questions, comments and suggestions. Drop me a line care of The C64 Column, PO Box 288, Gladesville NSW 2111. □

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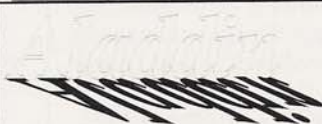
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Down the Opal Mine

Digital Image Composition

Although the following article was written for the OpalVision paint system, you can use many of the techniques discussed in virtually any paint program. (Many of the keyboard short cuts mentioned here work with *Deluxe Paint*.)

Accompanying this article you will see a composite image cut and pasted from various example images included with OpalVision. The techniques used here can be applied to an endless range of tasks from image retouching, compositing 3D-rendered objects, designing video title-pages and so on. These techniques include creating lovely textured "paper" or canvas on which to work, a deep-etching process to remove the object background, a great way to blend edges after pasting and a brief look at a way to create coloured and textured text. Off we go.

Textured background

First the textured background. In our example, we started with an image called unimaginatively "Girl1". This was a super-bitmap image that is 784 x 896 in resolution, but we want only the top-left corner, so go to the "Page Format" menu off the Extras Menu Bar. Depress the Hi-Res, Interlace and Overscan buttons then press the Screen-Size button to set the Page Size to 768 x 576. Hit OK, then make sure you replay "No" to the re-scaling question, as we only want to trim the image, not rescale it.

Now we want to apply a texture to the image and create a papery background. Alternatively, again if you have *OpalPaint 1.2* or higher, use the Amiga-b keyboard shortcut to fix the back-

ground. That way if you wish to remove all changes you can click the Trashcan icon and "clear" to the fixed background rather than a blank page.

The papery texture comes when you apply one of the included Paper Types. Enter the Nozzle Menu (RMB on any nozzle) then select the "HairyPaper" paper-type and set the paper-weight slider to around 75%. Now select a white Paint-Pot, hit the F10 key to remove the menu, then drag a solid rectangle across the whole image.

Very soon you will have a lovely textured paper with what looks like a fine water-mark in the weave. You may like to experiment with different colours, paper types and paper-weight settings, and remember that you can always apply a texture to a blank page before starting original art-work. This works particularly well with artist's tools, especially when you leave the paper-type switched on as you work. But I digress...

At this point it would probably be a

good idea to save the textured page to disk in case you slip up later. I'll leave the name up to your imagination.

Putting in objects

Now we want some objects to place on the paper. In the example, Greg has collected objects from various OpalVision sample images, removed them from their background (a process called deep-etching in the printing trade), resized them and pasted them onto the new background. Let's work through the process for the clown's head in the bottom-left of the image.

This process will utilize three different images or pages (as seen in the Spare Pages menu). The first will be called, for want of a better name, the Final Image Page. This currently should hold the textured background created above.

The second we will call the Background Page. The last will be the Source Object Page. Enter the "Spare Pages" menu (RMB, that's the Right Mouse Button, on the Spare Pages icon or hit the "J" keyboard shortcut), clone the textured page twice, then make a copy of the textured page (the Final Image Page) to the second new page (the Background Page). If you have limited RAM you may have to first select the "Save Spare Pages to Disk" option in the Preferences menu in order to get enough space to work.

Double click on the third spare page (the Source Object Page) to enter it,



and then load the Clown image shipped with your OpalVision system. Click the "ST" button on the Main Menu Bar to enter Stencil Work Mode, then using the drawing tools paint a stencil over the clown's head and shoulders. Use the filled freehand outline tool to draw the rough shape, then use a small nozzle and the magnify tool to carefully clean up the edges. Don't be extremely picky as another trick is on the way. Remember, use the Left Mouse button to add to the stencil and the Right Mouse Button to remove from the stencil. Also remember that the paint-pot colour is only used to set the stencil colour, so choose one that contrasts nicely with the colours around the Clown's head.

Once the stencil is drawn so the clown's head is covered, hit the "Invert" button to swap the stencilled and un-stencilled areas. Now hit the "PT" button to jump back to normal Paint Work Mode and use the scissors tool to cut out a rectangular area around the

head. (Use cutout position B1 to help me out with my explanations). The areas that were covered by the stencil should now be fully transparent in the cutout brush.

Jump into the Spare Pages menu again. You should have two identical copies of the textured paper. Just trust me for a minute and click on the second copy (the Background Page) using the Right Mouse Button (or use the "Set Secondary" button) to make it the Secondary page in the rub-through. (It will now show a blue border around it). Make sure the Rub Direction is set to "Secnd->Curr" and the Rub-Type is set to "Absolute". We will use this in a minute, but for now double-click on the Final Image Page. Before we go on hit the Amiga-b key to fix the background (if you have enough memory), check that the STEN button is off, select cutout B1, then paste the clown down in an appropriate position on the page.

Blending

Now comes the blending trick. Set up a nozzle with an air-brush Artist's Tool, then click on the "TXTR" menu button using the RMB and select "Rub-Through" as the colour source. Now when you paint using the air-brush nozzle, the colour for each pixel will come not from the selected Paint-Pot colour but from the equivalent pixel on the Secondary page, i.e. the page we have called the Background Page. This means that you can use a delicate air-brush around the edges of the newly pasted clown and blend it "back" into the background.

You can also use the Right Mouse Button to invoke Dynamic undo if you make a slip, and if you really muck things up you can clear the page and restore the fixed background (assuming you remembered to do an Amiga-b before starting this step). You can repeat the process for other images. □

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Daniel Rutter keeps us up to date with latest in useful public domain and shareware programs.

AIBB5.5

Amiga Intuition Based Benchmarks is the standard Amiga speed reference program, and the current version fully supports comparison with the A4000 - and, thanks to a module I made myself the other day on a friend's machine, will also compare your computer's speed with that of the 1200.

Interestingly, among the bug fix notices on this version is this snippet: "The default A3000 internal comparison machine is one using AmigaDOS 2.x now instead of 3.0 as in the previous 5.0 release of AIBB. This is to reflect the fact that AmigaDOS 3.0 is not openly available for the A500/A2000/A3000 series machines presently." Promising? (Workbench 3.0 comes with the new A1200 and A4000.)

Convert

Amiga users are, of course, blessed with one of the world's more interesting computers, but the machine has some oddities which can prove annoying. Not least of these is the Amiga's text formatting, which, sensibly, uses a single character to indicate a new line, unlike the IBM world which harks back to the distant teletype days and uses two. This means that Amiga users who directly read IBM formatted text get it double spaced, sometimes with odd characters on the ends of lines.

There are several programs to convert text formats, but the best I've found is called simply *Convert*, and does Amiga to or from IBM or Macintosh text formats, with a simple to use graphic interface. Other conversion modules can also be built for different formats, though the

built in four are fine for me. Unfortunately *Convert* may not be distributed for profit, so you'll have to find it for yourself.

SmartDisk

This is a hard disk caching program - it speeds hard drive operation by creating a RAM buffer for reads and writes which works much more efficiently than Commodore's antique AddBuffers. You need a spare 512k or so of RAM, and installation is simple.

Previous versions of *SmartDisk* (this is 1.3.1) could only use a few HD controllers; now it'll work with anything. If you have more than one HD (multiple partitions are okay) plugged in and using the same device driver you won't be able to use *SmartDisk*, but most people will find it useful. I know I do!

JBPHelp

One of IBM OS/2's large advantages over AmigaDOS 2 is that it's easy to find out what's going on since it has an excellent on line help function that'll tell you what the heck you're pointing at. The AmigaDOS is designed to run from floppy, where such luxuries are impossible, but it'd be nice to have such

a function available for those of us with hard drives. *JBPHelp*, a \$US25 ShareWare package, addresses this problem, and works quite well, allowing the help key to tell you what's going on in virtually any program. Unfortunately, this help is dependant upon you or somebody else having written a help file for the application in question, and there aren't many help files included. But it's worth a look - compose help files for your favourite programs and send them to the author!

Paragon

This is a slick, easy to play AMOS PD game, distantly related to Go, in which two players (or one and the computer) have to try to make given patterns with different coloured stones on a grid board. Trust me, it's a lot more interesting than it sounds! Worth a look.

SnoopDOS

This little beauty should be to hand for every serious Amiga user. *SnoopDOS*, from Eddy Carroll, is a program which monitors various DOS calls and tells you why a program won't run when the author of said program has not been decent enough to make it obvious. It avoids doing clumsy string searches through programs, hunting for obscure libraries which may or may not be necessary and all the rest of it. The current version is v1.7, and includes a couple of bugfixes and the option to send output to an external serial terminal (good if, like me, you've got one), or to open an output file in append mode so even if the machine hangs you'll have a record of what was going on. *SnoopDOS* is an invaluable window into your Amiga and saves the tearing out of much hair.

All

Have you ever been frustrated by archiving programs whose idea of a comprehensible help message is: "zoo {acDeglLPTuUvx}[aAcCdEfln mMNoOpPqu1:/.@n] archive file"? Then All, Archiving Intuition Interface, is for you.

Cybernetix



Given the appropriate accompanying archivers, it makes the creation and extraction of LZH, LHA, ZOO and ARC archives easy, and will also extract ARJ archives. It's ShareWare (the princely sum of \$5, and Aussie dollars too!), well documented and easy to use; the only thing it lacks is support for ZIP archives.

EAMPatch

This is a simple little patch program which removes those annoying recoverable alerts (\$0100000c Sanity check on memory list failed during Availmem(LARGEST)), that show up on some expanded Amigas running OS2.0+. If it happens to you - and it probably does - this little patch is for you. Short and sweet!

MAX's BBS

This is a quite popular bulletin board package, which isn't as powerful as some others but is easy to set up and sysop-friendly. Until recently MAX's has had some sort of pseudo-ShareWare licens-

ing/support arrangement (quite expensive, too), but now it's been put into the public domain - totally free!

The reasoning behind this is that the author, suffering unspecified personal problems, can't keep up with program support any more, which is not a development which has impressed those who've paid hundreds to register the BBS. Fortunately, Greg MacDonald and Colin Bell have resourced MAX's and will continue developing it (ta Johnny T for this info!), but rego money seems to be down the loo.

BlurGen

This little program generates pretty pictures. Just start it and it will produce a semi-random blurred background sort of picture, in psychedelic colours, which you can screengrab with any such program (for example *PictSaver*) and use for all sorts of things - for example, with the palette adjusted to greys it makes great marble, in browns plausible wood. Or you can just look - it's kind of like

what Jupiter would look like if Jimi Hendrix had a hand in the design. I like it.

BootX

This excellent WB2 only virus checker is now up to v5.23, with its virus recognition file up to 1.75. The latest version includes various bugfixes, a self-integrity check (to stop scumbag viruses implanting themselves into it or idiots hacking it) and, innovatively, a feature that will tell you when *BootX* thinks it's getting too old! If the main program is more than 90 days old, or the recog file more than 60, *BootX* will gently remind you that an update might be in order. I've raved about *BootX* often enough before - suffice to say that if you've got WB2, you want it.

Degrader

This program, from well known Australian programmer Chris Hames (*DirWork*, *PCTask*), has now hit v1.30. It allows users of expanded machines to

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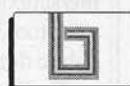




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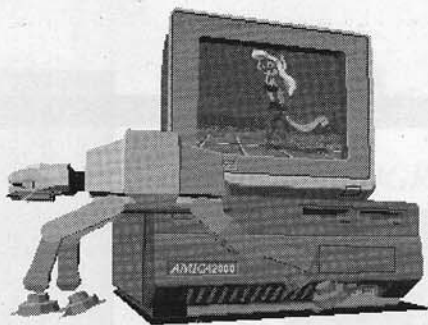
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power them down to the level where badly written programs will work again, and includes many useful hardware-tiddling features.

This latest version includes four new options. CachesOn turns on data caches on 030 or higher processors automatically on reboot. Enlighten automatically activates AGA graphics (provided of course you have such an Amiga) without needing SetPatch so correctly written non-DOS software can use the better graphics speed. PromoteAll makes all programs run on WB2 or higher use a particular monitor type instead of those they have set internally. And NoView tries to haul AGA machines down to ECS without rebooting. Overall, *Degrader* is an invaluable tool for anyone running a fast machine, or one with lots of floppy drives, or lots of RAM, or unusual



amounts of Chip RAM, and so on and so forth.

PopCLI

Was - still is - a much used WB1.x utility, to fire up a CLI without clicking on icons or flick one to the front. Now PopCLI IV is available for WB2. It's a

commodity, and lets you set hotkeys to start a CLI or move it to front. Simple, eh!

IntuiTracker

This is a simple little program that plays *SoundTracker* modules on your Workbench. The current version is 1.28 and adds compatibility with terminal software, a gadget to expand the equalizer area by 30% (which tends to cause crashes), a scroll speed option, an option to select Mods or directories with a real file requester, and powerpacked module support. It now works properly under WB2 (instead of freezing in the top left corner), and is worth getting.

Protracker 2.3a and 3.00B

Protracker is an evolution of the older *SoundTrackers*, the programs to make the music modules *Intuitracker* can only play. One of the most confusing things

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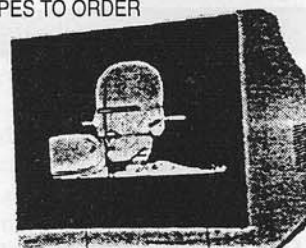
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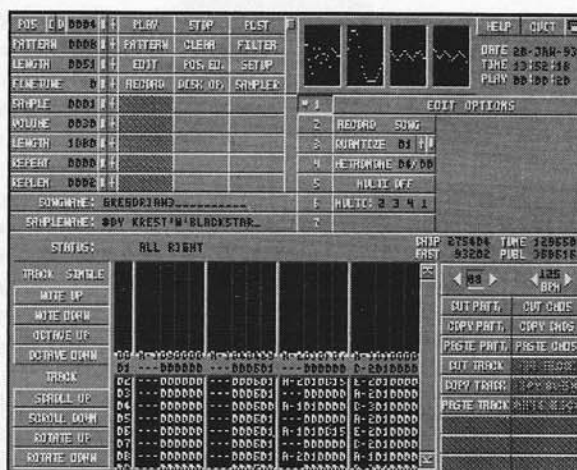
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about the SoundTrackers was the fact that various different groups produced their own flavours of Tracker, each with its own version numerology, with the result that one groups ST7.25 could be markedly inferior to another's ST1.4.

Now *Protracker*, alas, has done the same thing, with Peter Hanning of Mushroom Studios producing v2.3a, a useful debugged version of the earlier 2.2a, and Cryptoburners (Ivar Just Olsen, Tom Bech and Bjarte Andreassen) producing 3.00B. If I were you I'd stick with the Noxious series for the time being, because 3.00B, while it uses medium res instead of the lumpen lo-res of 2.3a, contains various bugs, doesn't have adequate (or any!) docs and rather spoils its extra screen space with lots of blank space where new buttons are going to be put. The Cryptoburners version should



Protracker

be very nice once it's finished, but at the moment v2.3a is the way to go.

Cybernetix

It's not often that a really, really good freely distributable game comes along - and here one is. *Cybernetix*, shareware

fee \$5, is a horizontally scrolling blast up like *Defender*, but with no Humanoids. It's got lots of enemies including some gorgeous asteroids (stolen from *Psygnosis* I suspect), tons of different fire powers, plenty of levels and is absolutely blisteringly fast. We are talking a serious white knuckle experience here, particularly if you're running on a machine that can be switched into hardware NTSC - *Cybernetix* is one of those games that goes like a budgie with its bum on fire once you get out of PAL. This is a commercial quality game, and the price is a

HUGE bargain!

Fred Fish Alert

Mr Fred Fish is one of the Amiga community's best known citizens. His PD library has been the lifeblood of the

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machine almost since its inception. Which makes this note from Fred, originally posted on UseNet, disturbing.

"Over the last couple of years, I've noticed a trend where fewer and fewer people are on my direct subscriber list. This last year has seen a particularly sharp decrease, from about an average of 75 subscribers to the current low of 41. That's right, there are only 41 people or organizations in the whole world that receive disks directly from me as of Jan 17, 1993, with about half of them being outside the United States.

"During this last year, the amount of time I have had available to spend constructing disks, doing accounting, and otherwise managing the library has also dropped sharply, so that more than ever I depend upon using outside help for things like presorting the submitted material, creating prototype disks which I then use for constructing the final disks, and doing the actual duplication, packaging, and shipping of the disks. I cannot expect these people to work for nothing,

so I have been paying them reasonable compensation for their time out of the ever dwindling subscription income. It's reached the point where sometime in the next month or two I'll make a decision about whether or not to shut down the library. There are insufficient incoming funds to meet the operating costs as well as pay for an occasional perk like a trip to an Amiga show once or twice a year, or some new hardware toy, there is little incentive to continue spending 20-30 hours a month running it.

"If you are in a position to influence a club, computer store, or other Amiga related organization to maintain a direct subscription for new disks, and thus help fund continued maintenance of the library, and are interested in seeing the library continue to grow, I'd urge you to consider doing what you can to help push the number of direct subscribers back up to more reasonable levels. Thanks."

Subscribing directly to Fish will get you the disks faster than any other

method, and as you can see Fred, like the rest of us, won't work unless there's some money in it. So get out there and subscribe, people!

On a brighter note, Sydney (or enthusiastic other) readers with modems who want to get in quick contact with me can post a message on my Amiga Q&A mail board on Arrow KBBS (02) 451 2660. You can also NetMail me, by preference on Amiga Connection (FidoNet 3:714/909) or Arrow (Fido 3:714/411), or, if it's an Amiga-specific question, post it in the Fido Aust_Amiga echomail area.

The companion disks for this column are available though Prime Artifax PD as HotPD 7a and 7b. They contain all the small programs listed, and the bigger ones (*BootX*, *MAX's* and the *ProTrackers*) are available separately from all good PD libraries. I've added icons to all the drawers and set up all the text files to display with FullView. Note that not all the programs have icons, since there's no point with CLI only utilities. Until next month! □

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Phil Campbell's MINDSCAPE Entertainment

All the latest news and views from the world of entertainment!

Amiga Civilized at Last

You've drooled over the reviews in the PC games magazines ... now it's here for the Amiga. Yep, *Civilization*, the game that stormed the strategy game charts, is finally available on the Amiga. Distributed by Ozisoft, it's in the shops now.

Lemmings 2 Out Now!

By the time you read this, the most awaited game ever should be sitting neatly on the shelves in your local software shop. *Lemmings 2* was due for pre-Christmas release, but the boys at Psygnosis weren't satisfied. "It looked great to me back then," said Ozisoft's Tim Allison, "but the team weren't convinced that it was polished enough to follow the success of the original *Lemmings*." So it was back to the drawing board for another two months, and now the game is ready to go. With a whole range of new *Lemming* features, like balloons, bows and arrows, and even skiers, and a whole new range of humorous Lemming-like behaviour, the game looks set for huge success! Watch for a full review soon.

A-Train Amiga Arrives

A-Train, Maxis software's superb Train-Sim has just been released for the Amiga. This is the first game from Maxis that wasn't produced "in-house" - which, says the publicity blurb, is a sure sign of its quality. After all, the Maxis team are pretty fussy! You play the part of a budding entrepreneur. Choose your trains, lay out your tracks, and before you know it you've produced a thriving business.

Towns and cities will spring up like mushrooms along your newly formed trade routes, and you'll soon be in charge of a bustling Metropolis. Top game - I've already played the PC version. Look out for it in your local store, or call Electronic Arts Order Hotline on 008 074 277.

ACAR Hints Disk Offer

Stuck in a game? Frustrated? Check out our two official ACAR Entertainment Hints and Tips Disks. They're both packed with handy hints and tips for all the most popular Amiga games. *The Secret of Monkey Island* is revealed, we'll give you all the training you need to win at *4D Sports Boxing*, we'll help you save the day at *Austerlitz* - and *Leisure Suit Larry* finally gets his girl.

How do you get it? Into a large envelope, place a blank Amiga disk for each disk required. Don't forget to do this! Add a cheque or postal order for \$5 per disk. Specify in a short note which disks you want. Now get another large envelope, address it to yourself and put on a stamp. Fold this envelope and place it in

the first envelope. Post it to Phil Campbell, PO Box 23, Maclean NSW 2463.

Mindscape December Winners!

Due to an unprecedented response from crazy people who like unjumbling words, we held over the announcement of the winners of Mindscape's *Troddlers* competition. We asked you to jumble up the letters of the first four level codes in *Troddlers* and make up as many new words as you could - but we didn't expect the huge pile of large brown envelopes stuffed with pages and pages of neatly written words. Without further ado, the winners are: Lauren Tan, West Ryde NSW, with a massive 6042 words, Allison Beagley, of Maddington WA, who found 4398 words. Yvonne Chandler, our regular word-comp genius from Griffith, NSW, with a meagre score of 4298, Ron Ashby, of Berrigan NSW with a neat 4200, Bob Peterson of Blakehurst NSW with 4102.

Congratulations on a top effort! Hope you enjoy playing *Troddlers*.

And Mindscape January Winners!

Another huge response! The January competition was a dead giveaway - all you had to do was untangle the letters to spell *Paperboy 2*! So five copies of the game are winging their way around the country, and each of these readers should find one in the mailbox ...

J. D. Hood, Sale, Vic, Tim Wallwork, Port Augusta SA, Jan Fudge, Naremburn WA, David Jordan, Caringbah NSW, Roslyn Fisher, Kelso, Qld.

Congratulations, and thanks again to Mindscape for the prizes!

Mindscape Howzat! Competition

Now it can be cricket season all year round! This month Mindscape are giving away five copies of the sensational new Aussie programmed cricket game *Howzat*! It's a top game, and you can enter by simply answering the following five questions on the back of an envelope:

1. Who faced the last ball from Curtly Ambrose in the Adelaide Test match played on Australia Day?

2. Who won, and by what margin?
3. What Australian pop group had a hit song called *Howzat*?
4. Name the three programmers responsible for Mindscape's *Howzat*.
5. What was Sir Donald Bradman's batting average?

Add your name and address, and mail it to Mindscape March Competition, c/o Phil Campbell, PO Box 23 Maclean NSW 2464.

ENTERTAINMENT & TIPS

Here's where we help you out of those tricky spots in your favourite games. But like all things in this world, there always has to be a bit of give and take. In other words, we need you to give us your hot tips so we can print them for everyone else! Send your helpful hints to Phil Campbell, PO Box 23 Maclean NSW 2463. Hints sent on disk will be rewarded with a free copy of our official ACAR Hints Disk. So what are you waiting for?

Troddlers - Stephen Bell wants us to know he completed *Troddlers* on January 26th 1993. And to celebrate, he sent us a full set of level codes!

- | | |
|----------------|----------------|
| 0. PREMIERE | 31. BOULERO |
| 1. BUILDIT | 32. CRUELWORLD |
| 2. NOSWEAT | 33. CRUELCUBES |
| 3. PYRAMID | 34. SLIPSLIDE |
| 4. CLEAROUT | 35. KEYX |
| 5. SPHINX | 36. COLDXCROSS |
| 6. QUARTET | 37. STONEM |
| 7. CENTERIN | 38. HARDROUND |
| 8. REDGEMS | 39. FIRSTGUNS |
| 9. CROSSED | 40. CROSSFIRE |
| 10. SKIPAROUND | 41. RUNFORIT |
| 11. PACKEDUP | 42. NORULES |
| 12. PILLARS | 43. NOFARFALL |
| 13. BZZZZZ | 44. RUNAROUND |
| 14. FIVEROWS | 45. BADBIRD |
| 15. TIGHTTIME | 46. COVERTHEM |
| 16. EASYONE | 47. SAVEBLOCKS |
| 17. TWOTRIBES | 48. GLAMOUR |
| 18. DONTMIX | 49. HACKBACK |
| 19. HELPEMOUT | 50. ALOTODD |
| 20. MEANONES | 51. UPSIDEDOWN |
| 21. NOPROBLEMS | 52. DROPEMIN |
| 22. TREASURES | 53. POSSIBLE |
| 23. STOREROOM | 54. CLOSEUP |
| 24. UPANDDOWN | 55. FOOLSRUN |
| 25. TECHNO | 56. JEWELPUSH |
| 26. ONEONONE | 57. GUIDETRY |
| 27. SIXROOMS | 58. WOTANSO |
| 28. THETOWER | 59. LOOSEM |
| 29. GOFORHEART | 60. YOURSOR |
| 30. NEWTHING | 61. SACRIFICE |

- | | |
|----------------|----------------|
| 62. BOOMPARADE | 81. SLOWBURN |
| 63. WAITFORIT | 82. STALLEM |
| 64. ROCKBLAST | 83. BADBOMBS |
| 65. NOWASTEALL | 84. SOLOMAN |
| 66. FROMABOVE | 85. HELLSDITCH |
| 67. SMASHHITS | 86. FIRSTFIRST |
| 68. CRUSHRUSH | 87. GOODLUCK |
| 69. FIRSTFIRE | 88. TIMEHUNTER |
| 70. BURNOUT | 89. NODELAY |
| 71. RUMBLEHOT | 90. NOPULLPLUG |
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Troddlers Team Mode

Andrew Hay, from Mt Isa, Qld, writes: "Your review of *Troddlers* in the January issue was absolutely right - it's an excellent game, though I found the solo mode of play far too easy to complete. (I finished it in two days). Anyway, I hope you can use these codes for Team Mode in the Hints & Tips section of ACAR.

Thanks Andrew

We can, and we did. Your copy of Hints Disk 1 is in the mail as requested.

- | | |
|-----------------|------------------|
| L0- BEGINNERS | L30- SPLITUP |
| L1- ROOKIES | L31- TARGETS |
| L2- HOPALONG | L32- SLOW SQUARE |
| L3- BRACKETS | L33- FLAKPASS |
| L4- SPARKLES | L34- THEWALL |
| L5- DOUBLEPLUS | L35- ROCKBOX |
| L6- LONGJUMP | L36- TWINGUNS |
| L7- RIGHTWAY | L37- GETHIMDOWN |
| L8- TRIDENT | L38- DROPTURN |
| L9- GUIDERIGHT | L39- TUFFJOB |
| L10- JUSTDOIT | L40- NOFALLDOWN |
| L11- ZOMBIEGO | L41- ICEICEBABY |
| L12- BADLAX | L42- SWIFTLY |
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| L14- TOOMUCH | L44- DELAYNPLAY |
| L15- SPLITTED | L45- FULLHOUSE |
| L16- RUSHIT | L46- TWORANKS |
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| L22- ROCKITOUT | L52- TRAXMIX |
| L23- CLEARAWAY | L53- HELLTRACK |
| L24- LOOKUP | L54- GETDABLUES |
| L25- ONEOFTHREE | L55- SHOOTNBLOW |
| L26- QUICKBRICK | L56- SLOWFLOW |
| L27- FROSTY | L57- COOPERATE |
| L28- SURROUNDED | L58- DENNISFAV |
| L29- BOOMER | L59- FINALE |

Titus the Fox

Graeme Beaven, from Wyong NSW, sent a handy pile of hints, and asks if I'm the same Phil Campbell he met in the BBC Hardware Handy 25 computer team. I'm not, but from what Graeme says he sounds like a nice guy!

Hi Phil ... I really like your name!

On to business. Here are the 25 level codes for Titus Software's excellent *Titus the Fox*:

- LEVEL 1 - 2625
- LEVEL 2 - 8455
- LEVEL 3 - 2974
- LEVEL 4 - 4916
- LEVEL 5 - 1933
- LEVEL 6 - 0738
- LEVEL 7 - 2237
- LEVEL 8 - 5648
- LEVEL 9 - 6390
- LEVEL 10 - 8612
- LEVEL 11 - 4187
- LEVEL 12 - 1350
- LEVEL 13 - 9813
- LEVEL 14 - 5052
- LEVEL 15 - 2045

Eye of the Beholder

To Brett Wallace in the December Issue who wanted help with the spiders in *Eye of the Beholder*, Graeme writes "It's better to go to the lower levels first and build up some more powerful spells, before attempting the spider level."

Might and Magic 2

To Sharon Morris in the November Issue who is stuck in *Might & Magic 2*, the amazing Graeme suggests "Travel back in time to Xabran and collect the Elemental disks. Collect the Elemental Talons and Orb and travel back to save the King. Visit Luxus Palace to get the password to enter the Island on square lake." Hey, wait a minute! Shouldn't that go in The Realm?

Rambo 3

Mark H. was looking for help with *Rambo 3* right back in the October Issue. Graeme again comes to the rescue. He says to make sure you're wearing gloves before you touch the high voltage door.

Entertainment Letters

Got an opinion? Got an idea for a great new game? Got a problem? Send your entertainment section letters to the Entertainment Mailbox, PO Box 23 Maclean NSW 2463, and you'll be tapping in to the biggest Amiga entertainment forum in Australia!

Investment Dilemma

Dear Phil, I bought a secondhand game for my C64 called *Wall Street*, by Time Works Inc. When I came to play it, I found that apparently you need an Investors Guide. Yes, you guessed it! It didn't come with the game. So if anyone has got the game and guide I will be happy to buy the guide or pay for photocopying fees. I hope someone out there can help. Also while on the subject of codes. I also purchased the game *Go Go The Ghost* secondhand. It has no codes and I would also appreciate a copy of them as well.

Rhonda Toms, *Redbank Plains, Qld*

Ed: This is a bit dicey, Rhonda! But I guess in the end it's a legitimate request. If anyone can help, drop us a line here at ACAR and we'll pass the info on.

Another Secondhand Deal

Dear Phil, I would like to know if anyone has a copy of disk one for *World Wrestling* as I bought this secondhand and this disk doesn't boot up. I don't know if disk two is stuffed. Please help me find a copy of disk one and maybe disk two.

Matthew Lowe, *Dinmore, Qld*

Ed: Boy, we're really in flea-market mode this month, aren't we! Maybe it's a sign of the recessionary times. If anyone can help Matthew out of his predicament, please let us know.

Win Some, Lose Some

Dear Phil, I have three questions: What is a parameter? What does a parameter do? How are parameters made?

Also in the January issue Cheryl Galpin requested help with *Labyrinth*. I have got the complete solution if she would like to get into contact with me at 9 Dunn Place, Coffs Harbour NSW 2450.

Jason Aldridge, *Coffs Harbour, NSW*

Ed: Thanks for the tips for Cheryl, Jason. As for your questions, I haven't got a clue what you're talking about, and it sounds like you haven't either. What sort of parameters are you talking about? In what context? A parameter is a variable or constraint you can set in a program or equation ... but so what?

Cricket Woes

Dear Phil, Just before Christmas, I got a friend to buy me *Ian Bothams Cricket* (Amiga), from Brisbane. The problem is, one of the disks doesn't work, I have lost the receipt and my friend doesn't know where he purchased it from. Could you please give me the Australian distributor for Celebrity Software, then I can take the matter up with them.

Troy Pettiford, *Roma, Qld*

Ed: The first thing you've got to do, Troy, is trade in your friend. I mean, how thick can you get? Your next step should be to phone Computer Spot in Brisbane and ask them for details of the game's distributor. Then write the distributor a begging letter, enclosing the faulty disk. Unfortunately, the game is not listed on any of my current catalogues.

Mercenary Minded

Dear Phil, On *Mercenary III* where can you get vehicles? I would also like a cheat for *Eye of the Beholder*. By the way your mag is more informative than the UK ones.

The Man In The Hat, *Nerang, Qld*

Ed: Stay tuned, hat ... we'll keep you posted on your *Mercenary* problems. You're absolutely right about those UK mags - they're full of big bright headings and pretty screen shots, but when it comes to the hard facts, where do you look? Good ol' ACAR!

Programming Wiz Wants Artist

Dear Phil, I am looking for some people to help make a PD game. I'm an Assembly Language programmer but I don't have any GFX talent. Please help.

Matthew Woodroffe, *Lavington, NSW*

Ed: Take a look at the next letter, it

could be just what you need! And by the way, when you finish your megagame, send it in and we'll take a look!

Talent Scouts

Dear Phil, I'd like to tell you of a new club which I am starting up. The goal of this club is to unite programmers, designers, music, and graphics talents to form a software group. Programmers, please write to tell me what programs you would like to program, designers tell me your ideas, graphics and music talents tell me general info about yourself and background. The bulk of the profits will go to the programmers and designers and a little bit for us. The label will be Featherstone and for more info write to me at: Featherstone Software, C/- Matt James, 26 Fernyhough Cr, Nth Lyneham, ACT, 2602.

Please send a SSAE too.

Matt James, *Nth Lyneham, ACT*

Ed: Who knows, Matt, you might be providing just the service that people like Matt Woodroffe are looking for. Again, when you finally patch together the great Australian mega-game, let us know here at ACAR - we'd be happy to take a look.

Apidya Help

Dear Phil, First of all, I have the Apidya Codes for Mark Howly.

2 - misshoneybee	3 - deputyoflove
4 - hastalavista	5 - sneakpreview
6 - showcredits	

Before I go, I must say that there has been an increasing trend in people writing stuff along the lines of "great Mag" and "Best mag ever". I'm sorry to say that it is not the best mag at all. I think ACAR has a long way to go before it becomes "good". To be more fair, it is good for \$3.50. But the only reason I get the mag is because of the C64 section.

Ben Bishop, *Hornsby, NSW*

Ed: Thanks for the tips, Ben. Naturally, we're deeply hurt by your comments about ACAR, though in some ways you're right. We're ten years old, and our cover price has hardly increased since issue number one - because we're here to give value for your magazine dollar! As for all the people who write to tell us we're great, what can I say? Maybe they have a mental problem. Or maybe they think it's the only way to get their letter in print. Congratulations. You just proved otherwise. □

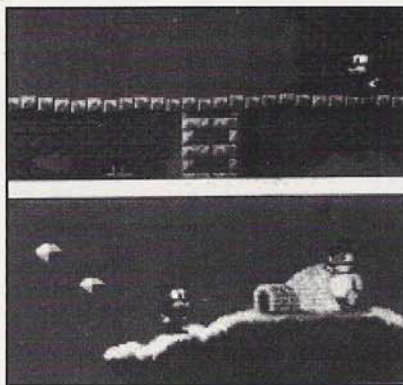
Feel like some mindless fun? Trail along with Dave Sanna as he checks out this new platform hopping marvel!

Tearaway Thomas

Well, in my first game of *Sonic the Hedge* ... wait a minute, the cover of the box says *Tearaway Thomas*. Erm, oh well. Like I said, in my first game of *Tearaway Thomas* I was astounded by its incredible speed. Yes, this *Sonic* lookalike is fast! Although the game isn't entirely a conversion it might as well be. Even the manual writes off the Sega, as "an evil form of entertainment used by amateurs and degenerates."

Anyway, apart from its speed, the gameplay is rivetting. One major factor is the time limit. The time is virtually set for you to complete the level with only two seconds to spare - of course, in this time you're not allowed to make any mistakes. This naturally adds to the addictiveness of the game. You will ONLY complete this game if you become addicted to it. If you want to get anywhere in *Tearaway Thomas* you have to know the levels off by heart to finish them in the time allowed. The big question is, is there enough variety to make your addiction worthwhile? The fact is, it's all based on speed and perfection of joystick movement. You won't need to switch on your brain!

In the game there are five worlds. The first is WOODLAND. Here's where there are plenty of wooded forests for *Tearaway* to rampage through. The enemies on this level are angry bears, crazy birds and violent bees who would just love to run into you and take two seconds off your time. Vicious little blighters! The aim of this level is to collect a pile of diamonds, and then find the exit within the time limit.



I still haven't made it to World Two, let alone three, four and five. Each world has ten levels, and so far I've only made it to level 7 in World 1. I'll keep trying!

What about the graphics? I have to admit, they're well above average. They are blended very well, (the background colours against the foreground), and the light and shade effects have been used well to create a realistic, if not



FACTBOX

You'll either love *Tearaway Thomas* or you'll loathe him! In spite of the fact that Dave found the game potentially addictive, with good quality graphics, it's more mind numbing than mind stretching.

However, it's a fast *Sonic*-style game that might be just your cup of tea.

Ratings:

Graphics:	70%
Sound:	61%
Gameplay:	65%
Overall:	62%

Distributed by Mindscape (02) 899 2277. RRP \$69.95.

"cartoonish" feel to the game. Enemy animations are good, though limited, and most of *Tearaway*'s movements are very fast - his rolls are usually well defined blurs.

There's music all the way through this game, giving it a distinct "pinni parlour" feel. You might say that the music is better than the bleep of an IBM but I wouldn't push it any further. There are not many sound effects, (as they are drowned out by the bleeps).

Okay, here's the final wrap up. If what I have said has affected you in any way, then go with your feelings. The game has its highlights, and plenty of people will like it. I'm just not one of them. The game doesn't have much in the way of brain food, just fast thinking for simple problems. For this price you could surely invest in another form of entertainment. For those of you who enjoy fast, reflex bending games, go out and buy it, get addicted and achieve nothing for the rest of your life!

Juris Graney signs up as caddy for a round of golf with the legendary Nick Faldo, and finds that the game that bears his name is destined to become legendary too!

Nick Faldo's Championship Golf



Nick Faldo MBE is currently the Number One golfer on the Sony World Rankings, and has again won the European Order of Merit. Since this 36 year old Englishman turned pro in 1976, he's won the French Open three times, the Spanish, Scandinavian and European Opens once each, the US Masters twice, the US Open Championship three times, and has won nineteen other professional championships. No wonder he's the world's number one!

Although he's lost the crown a few times, he's won it back this year. His lowest position in the European Order of Merit has been 42nd. Although, he is a great golfer, Nick also enjoys fishing and snooker. And if you want to talk about achievements, well grab this. In 1989, he was voted "Sportsman of the Year" by the Sports Writers Association; Ritz Club Golfer of the Year; and the London Sports Personality and BBC Sports Personality of the year. With all these achievements, you would think that *Nick Faldo's Championship Golf* would be a great game. Well, you won't be disappointed.

Let's start with the graphics, which always seem to make or break a golf game. Rest assured, *Nick Faldo's Championship Golf* has excellent screen artwork! Even though I don't really like golf much, I became instantly addicted to the game because the graphics were so realistic. They're nice and crisp, easy on the eye, and very large.

There are no fiddly bits. Everything is big enough, so that you can define what their purpose is. The background graphics are great too, though most holes have the same backdrop - the exquisitely designed club house. The trees, bunkers and your actual character are all very well done, as is the animated golf swing.

In play, the game is slick and smooth. The unique slide out menus are very accessible, and don't clutter the screen. Instead of coming from the top of the screen, there's one sliding menu on each side of the screen. When you move your pointer across to it, it folds out to display your options.

On the right hand side you'll see the lie of your ball and the top view map. If you click on this map, you're instantly shown the wind currents across the whole screen. This is very helpful when planning your shots. On the other side of the screen you can slide out the club menu. Choosing your weapons couldn't

FACTBOX

With top flight graphics and gameplay, *Nick Faldo's Championship Golf* scores a hole in one with Juris! A slick menu system and easy to learn but difficult to master strokeplay make the game a real winner.

Ratings:

Graphics:	96%
Sound/FX:	63%
Playability:	95%
Addictiveness:	96%
Overall:	93%

Distributed by Mindscape, (02) 899 2277. RRP Amiga \$79.95, C64 disk \$49.95.

be easier - just select a bagful before you leave the club house, and click to select the stick you need for each shot.

Sound effects, unfortunately, are very poor. In some ways they're similar to the sound-clips in the ancient *World Class Leaderboard*. Sometimes you'll also be reminded of *Barbarian II* - remember the bird whistling in the forest? He's back!

As for the optional music track - it gets annoying very quickly, and should be turned off before you commit suicide.

Overall, however, *Nick Faldo's Championship Golf* is an excellent game. It's not a golf game for beginners, though. Your swing timing has to be perfect and your judgement the same. The graphics are a treat for the eye and the courses are also excellent to play on. There's a multitude of options - matchplay, stick selection, caddy selection, coaching and much more. If you have to buy a golf game in 1993 then let this game be it. *Nick Faldo's Championship Golf* is, like Nick Faldo himself, destined to become legendary. It's well worth adding to your software collection.



Everybody's favourite Viking has finally made it onto the small screen! Grab your sword and jump on the longboat as Dave Sanna checks out ...



You've read the cartoons - now play the game! Predictable opening line I know but hey, it's a beauty. And there's plenty more to say about this riveting game, so read on! The first thing you notice when you load the game are the excellent cartoon style graphics and animations. They are very good and of course what is a game without entertainment.

Hagar is a typical henpecked Viking. Helga tells him to collect four treasures in each of the eight countries which he's setting out to conquer - and he doesn't dare disobey. At the end of each level you will encounter the army or beast which is the final defence for the castle or village. On destroying this you then gain a password for the next country. Sound simple? It isn't! Although you have four lives, Hagar is a rather large Viking and he's losing small amounts of his energy all the time. So what does a Viking do when he is low on energy (or any time for that matter)? He finds a tavern, and that's exactly what you have to do if you want to survive the manly perils of this rather exciting game.

"Right!" I say in my deepest Viking voice. "Let's conquer some countries!" So with an air of piracy and rebellion I climbed aboard my seaworthy ship and sailed to an unsuspecting island. I quietly sneak ashore and begin my tasks for Helga. Slashing and bashing my way

through, as only a Viking knows how, I find a shop. I buy myself a bonus life, and a few axes and spears.

As I leave, I bump into a deadly beetle - a precious life gone. And watch out for the fire as well! Whether it's fighting knights and old wizards, killing thieves and axe murderers, or wiping out butterflies and bees, a true viking is always having fun. Mind you, I'm not sure that you'd call the first end-of-level beastie "fun." He's mean - a flying Dragonasaurus. But I'm not afraid of dying, so I fend off his flames with my giant shield, and leap into the air. With one carefully placed blow, the beast was slain. Hooray!

When I began this review the first thing I mentioned was the games won-

FACTBOX

Hagar the Horrible is a better than average platform game featuring a well drawn, well animated version of the ever popular cartoon Viking. Gameplay is fast and smooth, and overall, it's a recommended purchase.

Ratings

Graphics:	85%
Sound/FX:	80%
Playability:	82%
Lastability:	87%
Overall:	86%

Distributed by Mindscape (02) 899 2277. RRP \$59.95.

derful graphics. From Hagar's bumping helmet to Helga's kiss the animations are a classic. When you fire one of your weapons, be it a dagger, spear, axe, fireball or smart bomb, it moves at a realistic speed.

There's some very good speech synthesis in the game, although most sound effects are a bit ordinary.

Overall I'd definitely recommend *Hagar*. It's a top little platform game that isn't that easy to get used to - and thus it should last you a good couple of weeks of continual play before total domination of the game is achieved. Even then you can always come back for more. Yes, a very wise investment for the upcoming Viking!



Like any other sensible Australian, Phil Campbell spent most of the summer glued to the cricket. Now he's glued to a new Aussie sports-sim ...

HOWZAT!

ONE DAY INTERNATIONAL

Who can forget the great Australia Day Debacle? Australia and the West Indies were locked in the most nerve racking test-match tussle in living memory - and we lost by one measly little run. What a game! And all you can say in retrospect is, you wouldn't be Craig McDermott for quids.

Even worse, now Craig's having a bad day on my computer screen as well. I'm playing *Howzat!*, a new Australian made one-day cricket game for the Amiga, and in his first over McDermott bowled five no-balls. Mind you, I guess it's mostly my fault.

Programmed by Albert Chan, Jason Chan and Philip Wong - otherwise known as Nightowl Software - *Howzat!* is without doubt the finest cricket simulation I've seen. Mind you, I've only seen two others, and they were bad. Clearly, though, these guys have worked hard to produce something that's slick, professional and very nice looking.

Let's cross back to Adelaide Oval. Simon O'Donnell has just taken a wicket with his third delivery, and Desmond Haynes is squaring up to face his first ball. O'Donnell bowls, and Haynes plays a defensive jab to fourth slip for a quick single. The crowd roars in appreciation.

Now it's O'Donnell to Greenidge. As the bowling phase begins, the screen splits into three sections. In the first window, which fills the upper half of the screen, the bowler is ready to begin his approach. With my joystick, I can widen or narrow

the angle of his run. The second box provides a choice of deliveries. For a pace bowler like McDermott, you can select an outswinger, inswinger or straight ball - with a spin bowler like Peter Taylor, there are four options.

With a click on the joystick button, it's on to the next window - a view of the batsman and the wicket, with a movable spot that dictates where the ball will land on the pitch. Click when you're satisfied, click to start bowling, and click again to release the ball before you step over the crease. Then sit back and watch what happens.

Here's where the game really shines. The animation sequences are superb, with a TV-style perspective. As Greenidge moves forward and strikes the ball, you'd almost swear he was real. He's large, highly detailed, and he moves with real grace and precision.

Fielding is tricky - it's all a matter of selecting the closest man, steering him towards the ball, then throwing it back to the wicket - a complicated process that seems to unnecessarily slow down the gameplay. The "catch" sequence, however, is excellent - when the ball is hit into the air, you take control of a

FACTBOX

Howzat! is an excellent rendition of one-day cricket, though it suffers from a few minor shortcomings. Graphics and animation are superb - joystick control and constant disk accessing are a bit annoying. Even so, a great first innings from the boys at Night Owl Software.

Ratings

Graphics:	84%
Sound:	81%
Gameplay:	72%
Overall:	77%

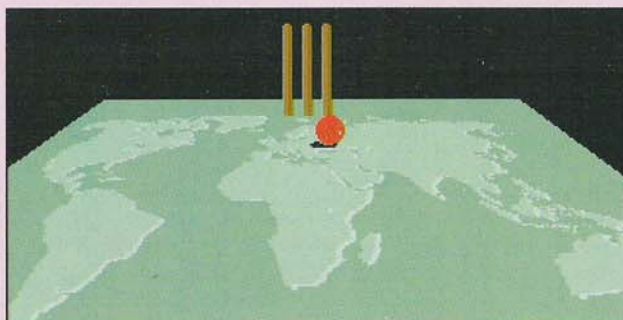
Distributed by Mindscape, (02) 899 2277. RRP \$69.95.

large scale player near the fence. Move him to the left or right, and press your fire button at exactly the right moment to take a catch.

What about batting? Let's just say the manual is not exaggerating when it says "mastering your batting strokes in the nets can take hours." Facing up to Curtly Ambrose is an unpleasant thought at the best of times, and after taking a tentative poke at the first three balls, my joystick-controlled David Boon was clean bowled on the fourth. Out for a duck.

In the end, *Howzat!* is a difficult game to assess. On the positive side, graphics are definitely first class. Sound is excellent too, with snatches of digitised commentary, loud appeals, and realistic crowd noises. And the game is thoroughly detailed - a must for any genuine cricket aficionado.

But here's some constructive criticism. First, joystick control seems clumsy. Why no provision for the mouse? Second, there's far too much disk swapping, even for a patient, gentlemanly type like myself. Between innings, I was asked to change disks fourteen times while a variety of graphs and statistics appeared on the screen. And I didn't want to see them anyway.



Newly L-Plated Juris Graney gets in some serious driving practice at the wheel of Formula One speedster - and thrashes the opposition. Read on as he checks ...



The engine purrs into life as I pump the accelerator. I change smoothly through the gears - second, third, fourth, fifth, sixth. By now the engine is in overdrive. Everything rushes past me at a sickening speed. As I come to a chicane, I push my foot down harder on the pedal. The speedo needle climbs to 325 kmh. Into the straight, I catch a glimpse of my opponent. The next corner is flying towards me. The adrenalin starts pumping faster than the petrol as the accelerator hits the floor.

I'm finally in the lead. Steering into a hairpin bend, my tyre scrapes the retaining wall and explodes. My car begins its death roll. The impact is immense, and I'm flung back onto the track in front of oncoming vehicles. A car hits me and rolls my car. Another goes straight over the top. Blackness ...

Pretty dramatic stuff, huh? Well, that is what makes *Nigel Mansell's World Championship* the great game it is! Adrenalin rushes through your blood as you fly around corners and into other cars. Gremlin have achieved another miracle with this game. The Lotus se-

ries was excellent - and so is this!

Graphics wise, *Nigel Mansell's World Championship* doesn't set any new trends. In fact, it's much like any other racing game. The from-the-cockpit view gives you a pretty standard view of a racetrack. But the scrolling is excellent - everything flows beautifully, and there's plenty of detail in the landscape. The actual car detail graphics are pretty good too. The hands on the steering wheel move exactly with the joystick movement. Other cars are well done too. The rest of the screen is uncluttered. You're not surrounded with unnecessary information, but it's easy to pick up your lap times, a map of the track and the distance between you and the second placed car at a glance. There was only one real let down for me, and that was that there are no real pictures of the car blowing up, or even the tyres blowing out - which makes the fireworks all seem a bit tame.

The music on the title screen is good for the type of game, with plenty of beat and has rhythm. The sound effects during the game are adequate - nothing

FACTBOX

Nigel Mansell's World Championship has got the makings of a good game - good graphics, good sound, and it's very addictive. It's a bit on the easy side, though, making it a great racing game for beginners. A top game and follows on well from the Lotus series.

Ratings

Graphics:	89%
Sound/FX:	65%
Playability:	78%
Addictiveness:	97%
Overall:	82%

Distributed by Electronic Arts
(075) 911 388. RRP \$79.95.

Or order your copy on the toll free Sales Hotline on 008 074 277.

to write home about, but then again, they are not scrappy either. The sounds of other cars passing and the sounds of the gears changing are very well done, possibly digitised from a real car.

Nigel Mansell's World Championship is comparatively easy compared to other car games in this genre. In one night - well, actually three hours - I had completed the game. I have just got my L plates and I just raced sixteen of the world's hardest tracks. Now there's something to boast about! If you get a good pole position, you are home and hosed before the race starts. Even if you don't, quick acceleration is the key and you will win very easily. Out of the 16 races, I won all of them.



Tireless Greg Munro takes to the streets as he checks out the sequel to the ever popular Paperboy. Yep, it's the imaginatively titled ...

Paperboy 2

A rolled up newspaper makes an awesome missile - especially the Saturday edition. My mate Tim Wilson tells me he once hoiked one over a big hedge and was surprised by a sudden torrent of verbal abuse. The old guy pruning it on the other side nearly fell off his perch when Tim hit him right between the eyes with a *Sydney Morning Herald*!

Anyone who's delivered newspapers will tell you similar tales, of broken windows, hidden sprinklers, and narrow escapes from fierce dogs. The hazards and joys of a paper run have great potential as video game material. *Paperboy 2* combines some of the everyday trials and mischief of the juvenile paper deliverer with some more imaginative elements to produce a clever and amusing game concept.

Your paperboy (or papergirl - you have a choice) must pedal bravely around trying to hit subscribers' letterboxes and avoid 4WDs, barking dalmatians, lawn mowers, sewer monsters, zombies and other nasties. These can be hit with newspapers to earn extra points. The game scrolls vertically, with the papergirl/boy peddling up streets at about a forty-five degree angle, which takes some getting used to - you tend to run into things a lot at first!

The game consists of three "weeks" of seven days each. The aim is to complete each daily round and the bonus "obstacle course" which follows. Each week has 20 houses: 10 subscribers and 10 non-subscribers. If the paperboy misses a house he should deliver to, or breaks a subscriber's window, it becomes a non-subscriber's house the next day. Houses can only be regained by having a perfect delivery round.

There are lots of amusing little scenarios, like the sunbather you annoy by hitting the sprinkler. You score 1000 points for hitting an armed robber outside the markets, or stopping a pram from rolling down the hill.

This paperboy has a definite sadistic streak though, and some of the things that score points are of rather dubious moral value! For example, causing an open car bonnet to fall on the head of the man working on his engine, or tipping elderly residents off the swing seat on their verandah! Even worse is the man working under his car - guess what happens when you hit the jack! Non-subscribers' windows are also fair game, and score a neat 200 points! It seems that wreaking havoc is allowed, just so long as you confine your nasty paperboy pranks to those who don't buy the newspaper.

Paperboy 2 is a brilliant concept, but unfortunately the game could have been better produced. It's cute and fun to play, but the Amiga version has several shortcomings. The game was obviously written for IBM and ported over as an afterthought, with little or no attempt to take advantage of the Amiga's graphics and

FACTBOX

When you get going, *Paperboy 2* is fun to play. However, two-player mode is all but useless, and the conversion from the original IBM version is a bit patchy. Try before you buy!

Ratings

Graphics:	65%
Sound FX:	65%
Playability:	65%
Addictiveness:	70%
Overall:	65%

Distributed by Mindscape (02) 899 2277. RRP \$69.95.

sound capabilities. The gameplay graphics are reasonable, but nothing special. At the end of each day, awful low-res chunky pictures of newspaper leaders appear with inane headlines about sunbathers filing complaints, or mysterious broken windows (when you lose, the headline is "Paperboy fired!" of course). These are unnecessary and annoying after a while.

The most disappointing thing about the game is the keyboard commands. Player 1 can use the joystick instead of the arrow keys to control the bike, but you still need to use the "<" and ">" keys to throw the papers, so you may as well use the keyboard for the lot. The two-player game is not worth playing, since the program doesn't recognise a second joystick at all, and the second player has to use the ridiculous combination of A,D,W,X to move, and "1" and "2" to throw papers left and right. The game is heavily copy-protected and the Amiga version cannot be installed on a HD (though the IBM version can). The instructions are barely adequate. The game itself is very enjoyable, but for \$60-70, I expect to get something a bit more polished. I suggest you try to see it demonstrated before you buy.



MICHAEL SPITERI'S

Adventurer's Realm

Welcome to the part of the magazine that looks after all adventure and role-playing persons who fiddle with Commodore's entire range of computers (Amiga, C64, Vic20, and... PCs). Our free hint sheet department is running hot with mail following the news of new hint sheets in January. Kerrie is coping easily with the flood of mail, so do not hesitate in sending in your request. Kerrie also has an updated listing of the Realm's Clever Contact network, which now spans all corners of the na-

tion. You can still send in your problems, views, complaints, whinges, jokes, or anything else to do with adventure games to me at: Adventurer's Realm, 12 Bridle Place, Pakenham, Vic 3810.

All you role-playing fans, Kamikaze Andy has hints (but not hint sheets) galore if you write to him at: Realm's Dungeon, PO Box 1083, Canning Vale, WA 6155.

Always enclosed a stamped addressed envelope to the Realm just in case we reply.

Realm's Adventure Swap

This is the part of the Realm where you can swap, sell, or buy old and new adventure games. If you are a software pirate, then we don't want to see your games here.

Jonathan Graves of 1 Herring Court, Sorrento in WA, 6020, would be willing to pay top dollar for *Spirit of Excalibur*, *Vengeance of Excalibur*, and for any other good Amiga games about King Arthur or Merlin. (He also can offer help to anyone stuck in *Conquests of Camelot*).

Joshua Lowcock, PO Box 343, Windsor, NSW 2756 is in the market for a C64 version of *Pirates*, and also *Yes, Prime Minister*.

Tam Le of 34 Dudley Street, Mount Druitt, NSW 2770 has the Amiga versions of *Heart of China*, *Spiderman*, *Edd the Duck*, *Chase HQ*, *Hard Drivin* and *Turbo Outrun*. He will sell them, or swapping 2 for 1 for the following games: *Secret of Monkey Island 1*, *2*,

Adventures of Willy Beamish, *Leisure Suit Larry 2*, *3*, *5*, or *Zool*.

Kizz of 39 Harold Street, Wendouree in Vic 3355 would like to buy some discounted Amiga software, in particular, *Secret of Silver Blades*, *Pools of Darkness*, *Champions of Krynn*, *Death Knights of Krynn*, *Gateway to the Savage Frontier*, *Treasures of the Savage Frontier*, *Eye of the Beholder 1 & 2*.

James Allen, PO Box 41, West Brunswick, Vic 3055 has the following games for the C64 for sale: *Batman* (movie version) and *Ninja Turtles*. He might swap for an Amiga RPG.

Chris Stratton, 2 Suding Close, Wy Yung, Vic 3875 writes: "I'd be willing to swap two of the following games: *Eye of the Beholder*, *Operation Stealth*, *Star Commander*, *Midwinter*, *Legend of the Sword*, for *Monkey Island II* or *Fate of Atlantis*, or one of them for *Larry II*, *III*, *Indy* and the *Last Crusade*, *Kings Quest IV*, *V* or *Loom*."

Free Hint Sheets

Kerrie, the Lady of the Realm, currently scuba diving under a mountain of mail, has a huge range of hint sheets free for the taking. Just send her a list of up to four hint sheets from the list below, enclose a stamped addressed envelope and send it to: Free Hint Sheets, 12 Bridle Place, Pakenham, Vic 3810. If you send in your request there is a high chance you'll get in within the week (no promises, but).

The hint sheets available are: *Monkey Island I*, *Monkey Island II*, *Space Quest III*, *Space Quest IV*, *Wonderland*, *Leisure Suit Larry III*, *Champions of Krynn*, *Kings Quest V*, *Pool of Radiance*, *Zak McKracken*, *Zork I*, *Zork II*, *Zork III*, *Bards Tale I*, *Bards Tale II*, *Bards Tale III*, *Hitchhikers' Guide to the Galaxy*, *Guild of Thieves*, *Jinxter*, *Pawn*, *Corruption*, *Fairy Tale*, and the 1993 Clever Contacts Listing.

Realm's Hint Books

Computer Adventure Games: Hints and Tips is the second Adventurer's Realm hint book. It can be purchased for only \$10 from this office - Saturday Magazine Pty Ltd, 21 Darley Rd, Randwick NSW 2031, phone (02) 398 5111, fax (02) 398 5322, and for your money you get a book packed with detailed hints for over 25 adventure and role-playing games, as well as pages and pages of mapping sheets. Look out for the big green dragon on the front cover.

The first Adventurer's Realm hint book is still available, in minimal numbers. If you'd like one, send a cheque for \$9.00 to Realm's First Hint Book, 12 Bridle Place, Pakenham, Vic 3810. Your money will buy you hints and tips to over forty classic adventure games.

Clever Contacts

Many people this month are eager to join the long list of Clever Contacts. Remember, if you are using the service of a Clever Contact, always enclose a stamped addressed envelope and some donation towards copying costs.

Aaron Anderson of 107 Bant Street, Bathurst, 2795 can offer help in the following games: *Monkey Island 1*, *Space Quest 2*, *Kings Quest 2*, *Search for the King*, *Pool of Radiance*, *Heroes Quest (Quest for Glory) 1* + map, *Larry 1*, *Loom*, *Eye of the Beholder* maps, and *Operation Stealth*.

Tom Le, 34 Dudley Street, Mr Druitt, 2770 has compiled a disk packed with solutions for many games, including *Larry 1, 2, 3*, *Kings Quest 1, 2*, *Police Quest 1, 2, 3*, plus others. Send a disk

and \$2 and you'll promptly receive the hint disk.

Cathi Cherry, 30 Bayview Rd, Lauderdale, Tas 7021, is vice-president of Friendz & Contax and she writes the adventure column for their bi-monthly magazine. Cathi can offer help on quite a few C64 adventure games. Write to her, or give a bell on (002)487103.

Aaron Davis is already a Clever Contact, however he has changed address. He can be contacted at 2A Careela St, RAAF Base, Darwin, NT 0820. Aaron adds: "I am enjoying being a Clever Contact, and am happy to continue this service to any troubled adventurers". It's also worth mentioning that Aaron is our first Clever Contact from the Northern Territory. Thanks, Aaron!

Tim Wilson of 16 Riatta Court, Rye, Vic 3941 has hints, solutions, and some maps to the following games: *Dr Brain*, *Covert Action*, *Eye of Beholder 1 & 2*, *Police Quest III*, *Pool of Radiance*, *Curse of Azure Bonds*, *Secret of Silver Blades*, *Pools of Darkness*, *Champions of Krynn*, *Death Knights of Krynn*, *Dark*

Queen of Krynn, *Gateway to Savage Frontier*, *Treasures of Savage Frontier*, *Hook*, *Monkey Island 2*, *Lure of the Temptress*, and *Kings Quest V*.

Chris Stratton of 2 Suding Close, Wy Yung, Vic 3875 can offer help in: *Monkey Island 1*, *Lure of the Temptress*, *Larry 1*, *Kings Quest 2 & 3*.

Kieran (Kizz) Hanrahan of 39 Harold Street, Wendouree, Vic 3355 can offer help in: *Pool of Radiance*, *Secret of the Silver Blades*, *Bards Tale 3*, *Dark Queen of Krynn*, and *Zork 1*.

Tony Finn of 214 Fernleigh Road, Wagga Wagga, NSW 2658 can offer help in the following games: *Monkey Island 2*, *Eye of the Beholder 1 & 2*, *Dungeon Master*, *Hitchhikers' Guide*, *Borrowed Time*, *Uninvited*, *It Came From the Desert 1*, *Bards Tale 1, 2, 3*, *Space Quest 1, 2, 3*, *Kings Quest 1, 2, 3, 4*, *Police Quest 1, 2*, *Ultima 4*, *Codename Iceman*, plus many other Sierra games.

Finally, read Adventure Chat for a Clever Contact for *Mortville Manor* and *Maupiti Island*.

Adventure Chat

Andre Thomas of Lockridge, in WA writes: "How could you publish such a letter about me saying that for \$5 a game that the game must be pirated, without make sure with me first (January issue). For your information, the games are not new releases and the ones that were priced at \$5 were purchased from \$10 each. Unless you expect me to be dishonest, and sell them for around \$20, you would agree that the pricings were fair. I would expect an apology published in the ACAR as soon as possible, and expect a free copy of *Eye of the Beholder II* sent to me promptly after receiving this letter."

Mike: Okay, point taken. I truly have one giant egg on my face, just above the foot wedged in my mouth.

I can't remember what games you were selling for \$5, though if I had

decided to contact you first, I'm sure you wouldn't own up if you were a pirate. Still, I retract what was said in the January issue and offer my sincere apologies, and if I had *Eye of the Beholder II*, I would send it to you, but I haven't, so you're going to miss out this time. I will add that Andre is after *Black Crypt*, *Centurion*, *Death Knights of Krynn*, and *Lure of Temptress* which he is willing to pay for at a reasonable price (\$5 maybe? Ahem).

Alex Stivala of Spence in ACT writes about the good ol' days of adventuring:

"The passing of the days of Infocom and text-based adventures certainly is a shame. I remember the first time I played an adventure game - it was *Zork*, on a friend's Atari 800. At the time, I had a Vic-20, but was never able to find the Scott Adams games anywhere, so I didn't have any adventure games until I got a Commodore 128, and the *Hobbit*, and when I purchase a disk drive moved onto Infocom games. In my opinion, *Trinity* is probably the best adventure

game ever published."

Mike: Wow, one of the original *Zorkers*! I tend to agree about *Trinity*, there hasn't been an adventure game released that matches its storyline and depth. Alex continues ...

"There must still be a demand for the old Infocom games though; I believe the *Lost Treasures of Infocom* is selling quite well. By the way, although I am no Macintosh fan, I think you were not quite correct in stating that the only historic adventure game on the Mac was *Deja Vu*. I distinctly remember playing *Leather Goddesses of Phobos* on a Mac once."

Mike: *Deja Vu* was truly historic, and most revolutionary, in the sense that it was the first game of its time to use the point'n'click icon interface now common among today's adventure games. Thanks for your comments.

Players of *Maupiti Island* can now rejoice, thanks to regular Realmer Noel McAskill:

"I would like to tell you of my experience with Lankhor, the publisher of

Mortville Manor and *Maupiti Island*. Having come to a full stop with *Maupiti Island* and in a fit of desperation, I wrote to Lankhor in France, not really expecting an answer. To my delight, I received a very prompt reply in English with a translation of my problem and a six page copy of Jerome Lange's travel diary in French; the latter solves all the problems in this game. My wife has translated the diary so you had better enrol me as a Clever Contact for these two games. Both are excellent games as

you know, and why the English and USA magazines ignore these games beats me. *Maupiti Island* is very difficult and I would never have solved the puzzles and codes in a million years. If my solutions are of any use to you, let me know."

Mike: Good on you, Noel (and your wife for being able to speak French). Maybe you can make up a couple of hint sheets for these two games - I'm sure many people will appreciate your efforts. Noel also obtained (straight from

the horse's mouth) news of another Jerome Lange title, called *Soukiya*, which should be available after April. Thanks again Noel, and yes, you are now a Clever Contact for these two games. You can write to Noel at 9-18 Vega Street, Revesby, NSW 2212.

Also, a big thank you to Neville Bettridge of Sth Hedland in WA for the solutions sent in to the Realm for *Kahn*, *O'Hara's Adventure*, and *Runaway*, and a big thanks to Tim Wilson from Rye for all the hints he contributed.

Help, Help & more Help or the Smart Adventurers Dept.

If you were stuck a few months back, then this is where we print all the tips people send in for specific problems. Thanks to all the Smart Adventurers who wrote it to help.

First up, Graeme Beaven of Wyong in NSW has sent in help for many troubled adventurers ...

To Keith Mackinlay in the December issue. To open the first room to dungeon Shame in *Ultima 5*, hack the rocks on the south wall to open the dungeon passage.

To Louise Sellek in the September issue. To find Stan in *Monkey Island 1*, he appears after you complete the three trials. Collect your three crew members, visit Stan, then go to the shop and ask for credit. Watch the safe opening carefully, and when the shopkeeper leaves,

open the safe and visit Stan to get your ship.

To Dave Betts in the September issue. To find the cursed sword called Hunger in *Eye of the Beholder 2*, it can be found on the Silver Tower Level 1. Through the lightning fields. You can also use polearm Leech, found in a secret room on Level 2.

To Peter Georges in the September issue. The Yellow Spider carvings can only be opened from the other side so jump through the pits from above.

To Darren Mummary in the November issue. In *Future Wars*, use the key on the air duct, put the gas in the air duct, use newspaper to block air duct. (Thanks to Tim Wilson from Rye for his help as well).

To Christian Forester in the November issue. In *Hook*, use the elastic on the slingshot, jump off the cliff twice and talk to the fat kid, use the slingshot and talk to the fat kid again and collect the marbles. Talk to Rufio and then go to the round pond and a ball will knock you to the tree house. (Also thanks to Tim Wilson from Rye for his hints).

To Peter Coleough who in August

was stuck in *Colonel's Bequest*, and to Kristian Anderson who in November was stuck in *Necromancer*, send a stamped addressed envelope to Graeme at PO Box 254, Wyong, NSW 2259, and he'll send you a complete answer sheet. Thanks, Graeme.

Rhonda Toms of Redbank Plains in Queensland has some help for Brett Higgins who was having trouble in *Dark Side* ... Run into the letters D, A, and R, enter the second part of Callisto stores where you should find a switch. Shoot this little switch before it goes away, then enter the triangle to the Lapetus sector. Enter the Equator tunnel and head west. You will find part of the tunnel under the Ganyde sector contains 3 lights. The middle one is the teleporter. Shoot the connecting wires until the crystal changes shape. Now pick it up.

Tim Wilson has some help for the ESFA mob who in November were stuck in *Bloodwych*. Locked doors can be magelocked open, as far as Tim remembers. Tim also helps out Aaron Danks who in December was stuck in *Police Quest 3*. Press SHIFT and type FUND and you get extra money.

Problems, Problems & more Problems or the Troubled Adventurers Dept.

Kieran Hanrahan is currently stuck tackling the second quest in *Knightmare*.

(Mark Harris suggests ... dropping objects on the nine pads to avoid the fireballs, then finding the gold key to the left and unlocking the door to the right. Go back to the start and get the help oracle).

James Allen is stuck in a game called *Zombie*. This game, based on *Day of the Dead*, was found on a Commodore User cover disk. Starting the truck, logging on to the computer, and turning on

the light in the basement are James' present problems. Any takers?

Neville Bettridge is stuck in the *Cranmore Diamond Affair*. What does Neville have to do with the diamond once he finds it? Also, in the game *Shifting Sands*, how does he get past the tarantula at the pyramid even though he has taken the antidote? How does he get the snake in the basket at the west house to get the paddle.

The Dungeon by Kamikaze Andy

The adventure game publisher we all love and everyone else tries to copy, Sierra, looks set to release its next batch of Amiga products all at once! There will be no respite for the Amiga adventurer as the new "enhanced" version of *Quest For Glory I* (formerly called *Hero Quest I*) which features claymation-like graphics will soon be followed by the release of the long awaited *King's Quest VI: Heir Today, Gone Tomorrow*, which will then be followed by *Quest For Glory III: The Wages Of War*. And even before the dust settles, the Californian based company plans to 'definitely' put out *EcoQuest II* and *Space Quest V* by the end of the year.

But wait, there's more! Sierra's latest distribution deal with French software publishers Coktel Vision means that they will be distributing the latter's next product, which just happens to be an adventure (surprise surprise) called *Inca*. After the success of the addictive Coktel Vision puzzle game *Goblins*, it's no wonder that Sierra is eager to continue its association with le French!

Rex Nebular

MicroProse is one company that has paid "tribute" to Sierra with its first ever adventure game, *Rex Nebular And The Cosmic Gender Bender*. Imagine Rex as a descendant of Larry Laffer, set in an outer space environment (gee, doesn't that sound like Roger Wilco from the *Space Quest* series as well?) with lots of lonely babes dotted on those lonely ol' planets. Aside from all these distractions, there's some sort of plot there to recover a priceless vase and generally prevent the universe from coming to an end. No big deal. MicroProse has hinted

that Rex might be popping up on your Amiga sometime towards the end of the year.

And now, some news from LucasArts. Apparently the computer game division, despite having huge hits such as *Indiana Jones And The Fate Of Atlantis*, is under pressure from head honcho George Lucas himself to transform itself into a more viable proposition (in English, it means George wants the company to make more money!). As such, LucasArts is now pinning its hopes on the long awaited X-Wing *Star Wars* simulator, and possibly a graphic adventure featuring *Star Wars* characters.

LucasArts has also confirmed a sequel to its first ever adventure, *Maniac Mansion*. It's to be called *Day Of The Tentacle*, and will be filled with the same wacky humour and slightly inane puzzles that its predecessor was famous for. You'll be able to choose to play one of three characters - a lunatic medical student, a roadie from a heavy metal band, or the perennial favourite - the computer nerd. Your mission, Jim, should you decide to accept it, is to use a variety of items ranging from exploding cigars to time machines in an attempt to prevent the evil mutant tentacles of Dr.Fred (remember him?) from taking control of the world. Are you up to the task?

Legend of Kyrandia

And now - *Kyrandia*. As promised last month, here are a few more details on Virgin Games and Westwood Associates brilliant first coproduction, *The Legend Of Kyrandia*.

Set in the magical realm of (guess ... yep!) Kyrandia, it seems that the greatest threat ever unleashed, a totally insane court jester called Malcolm (?) has escaped after being imprisoned for years and is looking for revenge. In his possession is the Kyragem, the source of all magic in Kyrandia. Under Malcolm's control, the flow of magic has slowly been sucked away from the land and it's your destiny to confront this threat before it is too late. Sigh. Never easy being an adventurer, is it?

You play Brandon, possibly the last human on the face of this world (everyone else seems to have turned to stone), and while you readily agree to try and stop Malcolm from global (realmal?) domination (you don't have much choice - otherwise there wouldn't be any point in playing the game, right?) you also have a personal score to settle with the jester. You see, it seems that Brandon is also the son of the former ruler of Kyrandia, King William ... whose royal court was home to one (then only slightly) insane court jester ... and who was mercilessly slain by said jester in a fit of (um ... er ...) insanity. That's right, son - this time, it's personal ...

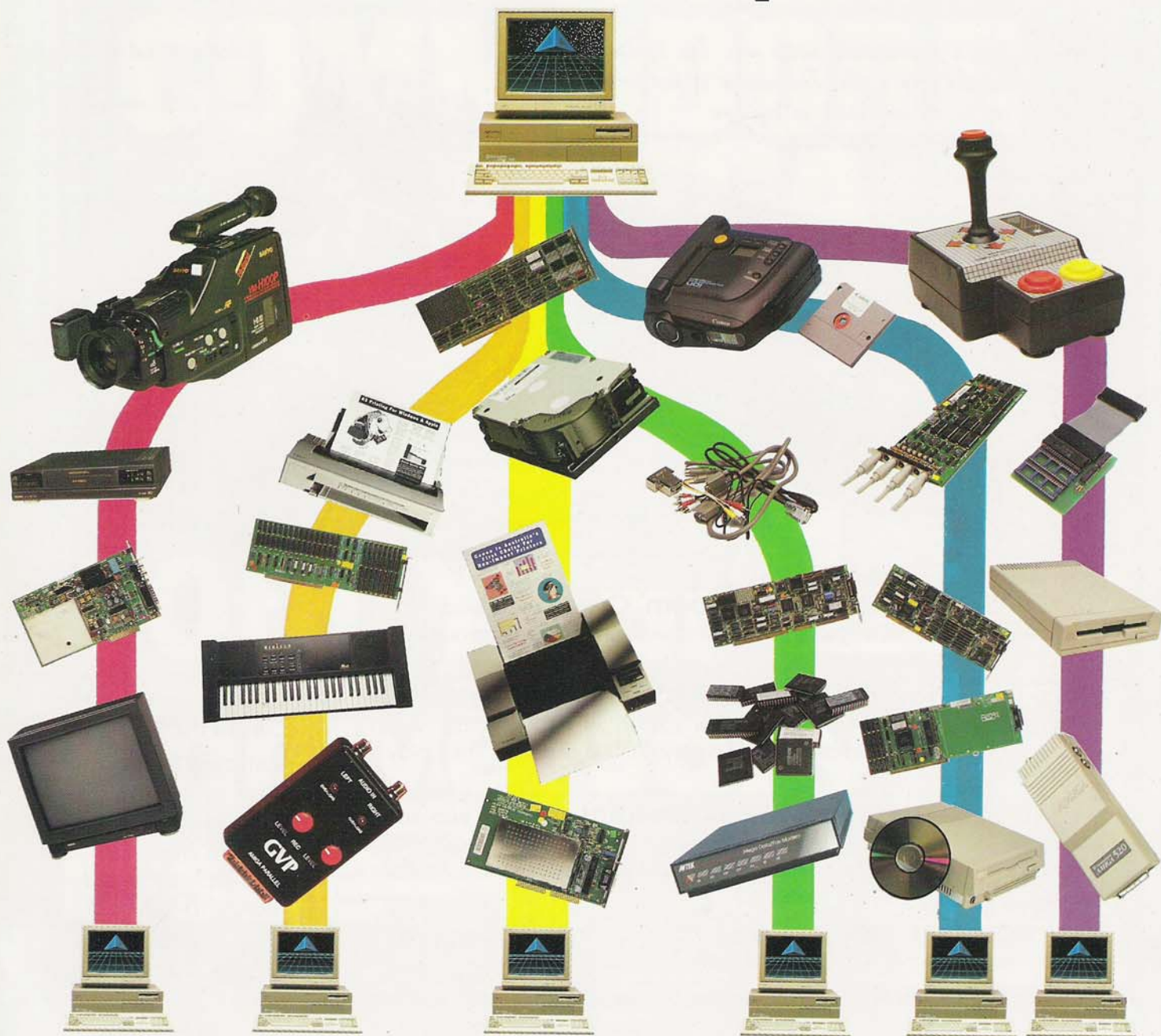
"Sierra, looks set to release its next batch of Amiga products all at once"

What makes Kyrandia stand out from other adventures of its type is the ease with which you can get right into the game, the gradual increase in the difficulty of puzzles as you progress (neat!) and most of all, the superb graphical effects. When you heal a sick tree with your magic, it transforms so beautifully that you just have to sit back and watch in amazement.

Each scene is drawn lovingly, and my personal favourite is the "Predator" effect - Brandon can camouflage himself to match his surroundings like that nasty Alien from Arnie's hit movie. As Brandon moves, you can observe the ripples that outline his invisible body - brilliant!

The Legend Of Kyrandia will (fingers crossed) ship by the middle of this year for the Amiga, and it looks like being a major hit with novice adventurers as well as with seasoned gamers (especially those who enjoy - dare I say it - Sierra adventures). Okay, okay - maybe it isn't so bad to copy the Sierra style - as long as the clones are as good as the original. Or as in Kyrandia's case, even better! □

Evolution of a species



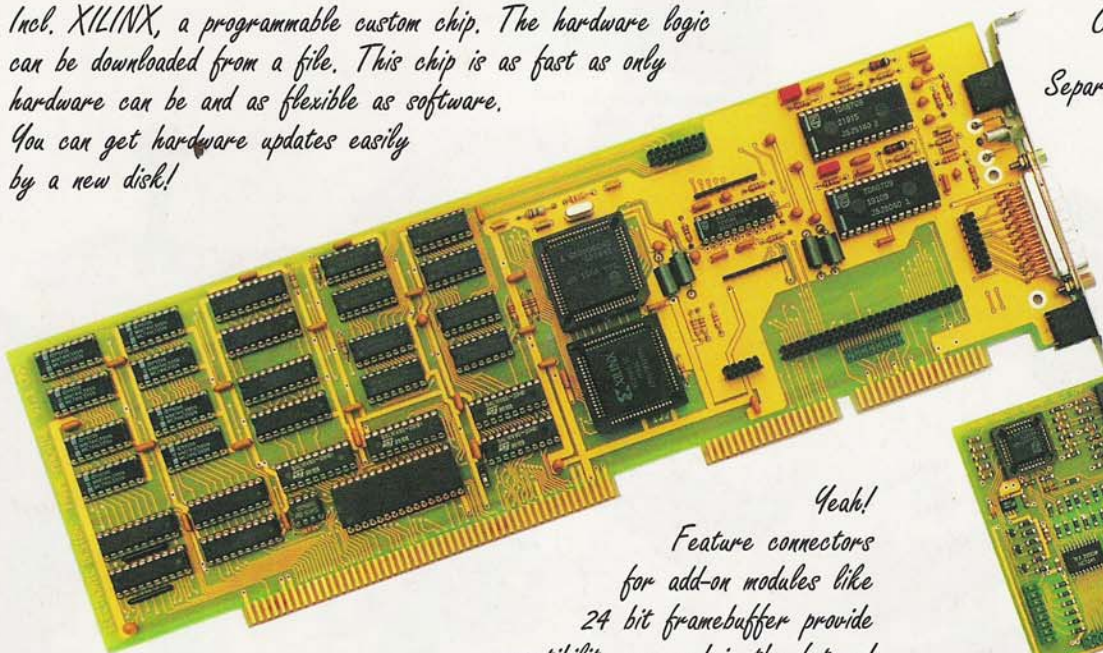
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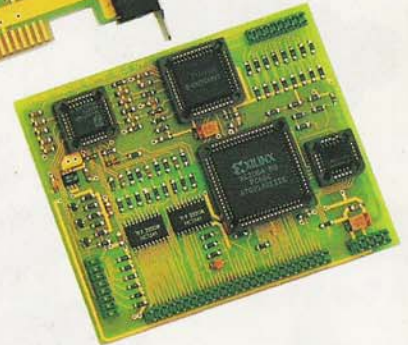
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